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An Allison Analysis

P. Mason Carpenter, Major, USAF

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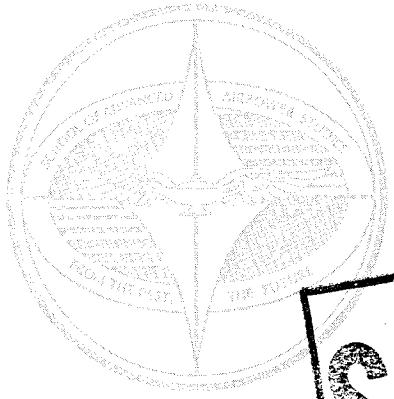

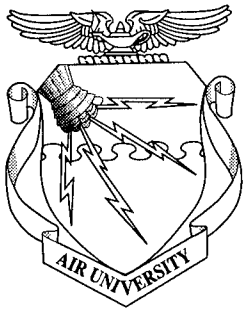

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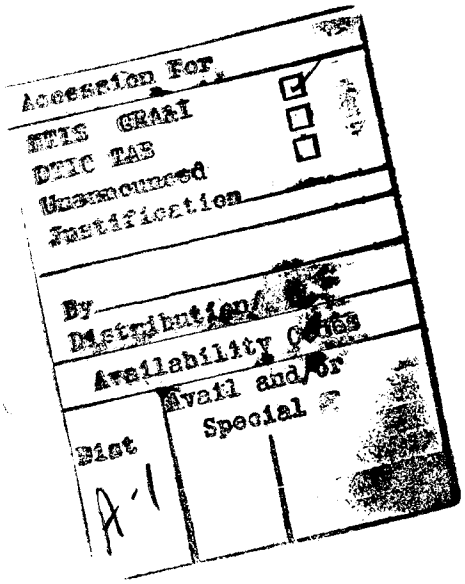

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Abstract

To what extent was the effectiveness of joint operations in the Gulf War influenced by individual service perspectives? This study uses Graham Allison's three models of bureaucratic behavior (Model I, Rational Actor; Model II, Organizational Process; and Model III, Bureaucratic Politics) to answer this question. The value of interservice integration has been recognized for a long time. The Department of Defense Reorganization Act of 1986 (Goldwater-Nichols) made significant strides integrating the services at the most senior levels, that is, the component commanders and above. The study concludes that, in general, at the component commander level and above during Operation Desert Shield/Desert Storm, rational decisions were made and rational actions were implemented to prosecute the war (Model I behavior). The Goldwater-Nichols legislation did not make as much headway, however, in integrating the services below the level of component commander. Unlike the most senior levels of command, decisions made and actions taken were not always implemented for the most rational reason. For the most part, decisions and actions were Model I. But *at times*, decisions and actions were not optimal because the decisionmaker/actor lacked information, had a different service perspective, and/or inadequately understood and empathized with members of the other services (primarily Model II, but with traces of Model III as well). Based on these findings, the study suggests in order to continue to improve interservice integration, we need to teach concepts of service integration early in an officer's career, expand joint interaction and provide *some* additional standardization among theaters.

Acknowledgment

This thesis is part of a larger forthcoming work which further explores command relations and joint operations in the Gulf War. In addition to addressing more joint issues, this larger work will contain analyses of (international) operations, the National Command Authority, the Chairman of the Joint Chiefs of Staff, and the Joint Staff in the Gulf War. It will also examine the joint staff and joint operations, and make specific recommendations for future service integration.

I would like to acknowledge the tremendous assistance provided by a number of individuals in preparing this document. They include Hal Winton (editor extraordinaire), Bob Pape, Mike Buck, Bill Arkin, Douglas Johnson, Greg Fontenot, Steve Rinaldi, Buster McCrabb, Kevin Van Sloten, Pat Beekman, Linda Hills, Dave Deptula, Ed Mann, Rich Reynolds, Tommy Crawford, Ted Bale, Randy O'Boyle, Cas Saleh, Eric Hastings, Ken Feldman, Dave Mets, Bob Scheller, Steve Ramsdell, Ali al-Saghir, Mohammed Kazam, Richard Lewis, J. C. Bozeman, N. E. Taylor, John Warden and all the instructors at the School of Advanced Airpower Studies. I also owe many thanks to the senior officers who provided me their time to interview them, and to Phil Meilinger, without whose support, I would not have had the opportunity. These senior officers include Generals Buster Glosson, Chuck Horner, Walt Boomer, Fred Franks, John Corder, Robert Russ, Michael Ryan, John Yeosock, and Admirals Stan Arthur and Hank Mauz. Finally I owe my greatest thanks to Pat Pentland, F-111 and A-10 pilot extraordinaire, and my awesome wife, Karen.

Chapter 1

Introduction

The United States military lauds Operation Desert Storm as a military success and an example of a successful joint operation. The military services, however, continue to debate the exact definition of jointness and the role of service components in joint operations. To a significant extent, the military services remain suspicious of one another and still retain their own individual service perspectives. The question therefore arises: to what extent was the effectiveness of joint operations in the Gulf War influenced by these individual service perspectives?

In Operation Desert Storm, the United States and Coalition forces enjoyed overwhelming resources with which to apply overwhelming force. With this abundance of force, we could afford to be somewhat inefficient in our service integration. Because we may not always enjoy the benefit of overwhelming force, better integration of all military services in joint operations may be crucial to victory in the future. Our experience in Operation Desert Storm provides a medium to study and improve our ability to integrate the services in joint operations. An examination of our command relations prior to and during the conflict is key to the study of our experiences in Operation Desert Storm.

In Operation Desert Storm our most senior military officers generally interacted with one another well, made decisions, and conducted operations with mission accomplishment foremost in their minds. To an extent, differing military service perspectives did have *some effect* on senior officer judgment on how to integrate the services and conduct joint operations. But generally, the "most senior leaders" retained one another's respect and worked together in a rational manner. In direct discussions, senior leaders generally resolved controversial issues based on logic, mutual trust, and understanding. The most senior leaders included:

Gen H. Norman Schwarzkopf	Commander-in-Chief, US Central Command
Lt Gen Calvin Waller	Vice Commander-in-Chief, US Central Command
Lt Gen "Chuck" Horner	Commander, Central Command Air Forces (CENTAF)
Lt Gen Walt Boomer	Commander, Marine Central Command (MARCENT)
Lt Gen John Yeosock	Commander, Army Central Command (ARCENT)
Vice Adm Stan Arthur	Commander, Navy Central Command (NAVCENT) (August 1990–December 1990)
Vice Adm "Hank" Mauz	Commander, Navy Central Command (NAVCENT) (December 1990–March 1991)

At command levels below the most senior leaders, individual perspectives had a *profound effect* on command judgments that influenced service integration and the conduct of joint operations. Although individuals at these levels made decisions and conducted operations with theater mission accomplishment foremost in mind, a narrower mission focus *sometimes* prevailed—one often dominated by their service's vision of war. This narrower focus degraded interservice communication and interaction. *Some* of the key officers below the most senior leaders included

Brig Gen "Buster" Glosson	Director of Planning, CENTAF
Maj Gen John Corder	Deputy Commander for Operations, CENTAF
Lt Gen Fred Franks	Commander, VII Corps
Lt Gen Gary Luck	Commander, XVIII Corps
Lt Gen Royal Moore	Commander, 1st Marine Air Wing

Once inside the tactical level of operations, services worked together without significant friction. However, the framework developed and implemented by commanders and leaders at all levels constrained the tactical organizations. Thus, while tactical commanders themselves were generally willing to work closely with units from the other services and generally did not degrade operations from a lack of joint effort, tactical units were constrained by the established framework, doctrine, and guidelines. This resulted in units of different services not working together with *maximum* effectiveness.

It must be noted that some controversial issues did not require resolution during Operation Desert Shield/Desert Storm in order for the conflict to be a Coalition success. This was largely due to a great deal of combat preparation time, abundant combat resources, and a safe build-up/basing area. However, it should be kept in mind that the next major conflict may find US forces without the luxury of time, excess resources, or a safe basing area.

In summary, the goal of this work is to determine how commanders made and implemented decisions in Operation Desert Storm, and how individual service perspectives influenced them. To accomplish this I will 1) outline my research and analysis methodology; 2) examine important issues concerning each of the four services; and 3) present conclusions and lessons learned. This analysis will hopefully enhance the design and conduct of future joint operations.

Chapter 2

Methodology

Joint operations are, in essence, an interaction of the different military service commands. These command relations during conflict can be best understood by examining them in the framework of the United States' most recent wartime experience, Operation Desert Shield/Desert Storm. Command relations will be examined by studying them through a series of joint issues. Analysis of these issues, which will involve each of the services and the senior national leaders, provides insight into the actual practice of the command relationships.

After examining the details of each issue, an analysis of the command relations within each issue will be made. Then Graham Allison's framework of organizational behavior outlined in his book, *Essence of Decision,*[1] will be used to assess the dynamics of command relationships. This analysis is conducted in order to understand 1) how joint decisions were reached among the different service commanders; 2) how joint decisions were implemented; and 3) the operational consequences of the joint decisions and actions. With this understanding, some conclusions are offered to improve future joint force employment.

Before investigating the issues, it is best to review jointness and the Allison models.

Jointness

Joint is defined by the Department of Defense (DOD) as "activities, operations, organizations, etc., in which elements of more than one Service of the same nation participate."[2] *Jointness* will be defined as the condition of being joint. Theater commanders strive to exploit the full military capability of their assigned forces by closely integrating the efforts of the separate military services. Combat performance depends on how well the forces of the different services are integrated. National guidance directs that

> The policies and procedures of the departments and agencies of the Department of Defense will be integrated to the maximum extent practicable. This integration does not imply the merging of the armed forces but does demand a consonance and correlation of policies and procedures throughout the Department of Defense to produce an effective, economical and harmonious organization that will ensure the security of the United States.[3]

All our military forces must be capable of unity of effort by integrating command and ensuring force interoperability.

Being joint is working closely together and cooperating with the other military services. On the surface this would not seem to be difficult. After all, regardless of service, military members share the same love of country and are generally willing to sacrifice even their lives to protect and defend our nation's freedom and way of life. But, in reality, interservice cooperation was so difficult that it required the intervention of Congress with the DOD Reorganization Act of 1986 (Goldwater-Nichols Act [GNA]) to further the process of bringing the military services closer together. If the military had been able to achieve better integration within itself, this congressional action would have been unnecessary.

When interacting with other military services, a military member must keep one overriding and most important perspective in mind: *Is the conduct of military operations being advocated, regardless of service role, the best way for the United States to do business?* Specifically, military service members must keep in mind "what is best for the nation" and not necessarily "what is best for the service." Doing well by one's service does not always equate to doing well by one's country. Insofar as this study is concerned, a military member will be doing the best for his nation by making decisions and taking actions which will best improve overall combat effectiveness, regardless of the effects upon the individual services. Behavior which maximizes the capability of a *part* of an organization at the expense of the *whole* of the organization is dysfunctional.

Allison's Models

We are often puzzled by how large organizations arrive at and implement decisions. Often, the decisions and the resulting actions seem to be irrational. But we often fail to understand and appreciate the complexity of decision making in large organizations. There are three basic phases to this process: 1) information input; 2) decision making; and 3) decision implementation.

In *Essence of Decision*, Graham Allison has developed a three hypotheses or models for *explaining* organizational decision making. These frameworks for analysis are as follows: Model I, The Rational Actor; Model II, Organizational Process; and Model III, Bureaucratic Politics.[4] Although *Essence of Decision* is primarily about decision making at the national level, his frameworks can help us understand the decision-making process at other levels as well. When analyzing each of the issues in the following paper, Allison's models will help explain how a specific decision was reached and the action implemented.[5] This study adapts Allison's methodology to analyze the United States military command relations and joint interaction during the Gulf War.

Model I: The Rational Actor

This model is the foundation or "base" model to explain the behavior of large organizations. The unit of analysis is *decision by choice*. It assumes the decisions reached and actions implemented are accomplished by rational

actors for rational reasons. It also assumes that the decision makers have necessary and accurate information on which to base their decisions.

Action in Model I is accomplished by rational choice. Goals and objectives are established, all reasonable options are considered and evaluated, and the consequences of all actions are considered. By choice, the option which best ensures the desired outcome is selected. Finally, the decision is fully implemented as intended. Note that effective upward and downward communication is essential to a Model I process. Without clear communication, information does not flow properly in either direction. Without accurate information, truly rational unbiased decisions/actions are difficult to obtain.[6]

Model I sounds nice and is the optimum manner in which to conduct business, but it does not exist in many instances in the "real" world. Thus, in this analysis, for decisions or actions to be termed *Model I*, they will not have to be *absolutely* perfect. For the decision or action to be considered Model I, the decision or action must be clearly closer to a Model I reality than to the other two models. For purposes of this paper, a decision or action will be considered Model I when the following occurs:

1. The decision reached and action conducted achieve maximum benefit for minimum cost, and the best solutions possible (the most rational decision/action).

2. The decision reached and the action conducted are made with the "big picture" in mind and for the good of the entire organization.

3. The decision reached and action conducted are made with the information available.

4. Adequate information is available to the decision maker for making the best decision possible.

Model II: Organizational Process

This model explains behavior of large organizations as the result of the processes and procedures of the suborganizations which make it up. Organizational decision and action become the result of suborganizational influence.[7] Standard operating procedures and routines dominate. Organizational perspectives influence decisions and affect how decisions are implemented. Perspectives are influenced by available information, personnel recruitment, tenure in organization, group pressures, and distributions of awards and punishments.

Members of the organization tend to avoid uncertainty in lieu of confronting it; therefore, the tendency of members is to rely on routines and standard operating procedures. Major change and learning in the organization generally occurs only with a dramatic performance failure or an organizational crisis occurs. Decision implementation is often complex because there is often room for different interpretations of the decision. These different interpretations may result in actions occurring which were not exactly what the decision maker had in mind.

Organizations acting within Model II will often lack flexibility and farsightedness. Long-range planning becomes institutionalized and disregarded. Conformity to the organization, its ideas, and "proven" methods will usually result in actions that are not optimal. Hard choices are sometimes avoided and tradeoffs/compromises are made to facilitate action and accommodate others. This again results in less than optimum actions.[8]

Individuals or organizations operating without the availability or benefit of all the necessary information to make rational decisions and operate within Model I will be considered operating within Model II. Rational decisions with the "big picture" in mind cannot be made with incomplete information. Sometimes this lack of information is the fault of the organization making the decision or taking the action. At other times the organization/individual may not be at fault. But in either case, the best rational decisions cannot be made with incomplete data. Organizations will be considered to be operating Model II when the following occurs.

1. The decision reached and the action taken is based primarily on normal organizational operating procedures or organizational doctrine.

2. The decision reached and action taken are made without information necessary to be fully rational in the larger scheme of events.

3. The decision made and action taken are intentionally made from the perspective of the suborganization and not with the "big picture" in mind.

Model III: Bureaucratic Politics

This model explains the behavior of large organizations as the result of bargaining among players in the organization. Actions are political resultants.[9] Each individual actor is considered to have his/her own view and influence on the decision and how it is implemented.

Model III behavior is the most difficult behavior to demonstrate. It is unusual for specific individuals to admit selfish motivations as the basis for their actions and decisions. However, even if unproved, Model III is still very important. *Perceptions* of officers that other groups or individuals are acting in consonance with Model III can result in dysfunctional behavior. For example, if a Marine officer believes Army officers are acting Model III at the expense of the Marine Corps, whether true or not, the Marine officer may begin making decisions and acting in what he sees as the best interests of the USMC. In this instance, a *perception* of Model III behavior led to *actual* Model III behavior. A spiraling effect can result when the Army officers become aware of the Model III Marine behavior.

Decisions made in Model III are often the result of bargaining. The individual officer's power determines his/her ability to influence decisions and actions. An officer's stand is determined by personal priorities and perceptions, goals and interests, stakes, deadlines, and implications of the issues. Power determines influence, which determines the officer's impact. Power is determined by bargaining advantages, skill, rank, will, and by the

perception of the other players. Failure in this instance can degrade the individual in the eyes of other officers and result in a loss of effective power/influence.

Bargaining is not random. Action channels exist to channel routines, interactions, and actions. Both informal and formal rules exist for players to abide by. Officers fight for specific outcomes and, even when a decision is made, the "fight" may often continue. Continuing can result in overturning a decision or varying the implementation. Solutions to problems are not discovered by detached analysis of the main problem, but by analysis of the specific area of a problem an officer is working.

Rarely do individuals view the same issue in the same manner. Issues may take on a slightly different focus depending on the player's perspective as well as organizational perspectives/traditions, and so forth. Insight into others' perspectives may be limited. This is especially true when communication is degraded.

Demands on individuals differ depending on their position/rank in the organization. The primary demand on the individual at the top is to preserve options until more certainty is obtained. Individuals in the middle lean toward gaining horizontal support. Lower level individuals generally attempt to get the higher level actor's approval.

In Model III, connections (such as good-ole-boy networks) are important to individuals competing to influence a decision and action. Connections mean information, support, and increased influence. Time in position is important for connections and influence. Later arrivals, who are not as established, must, through time, build and develop influence and power. Well-connected appointees with obvious high power support may transcend others to a degree.[10]

There is also a strong need for advocates of specific actions and/or options in Model III, that is, the advocate conforms to the position of his/her service. An advocate can provide dynamics, alternative ideas, and research initiative for worthwhile endeavor's which might not otherwise exist. However, effective advocates can unduly influence decisions and actions through pure ability to "sell" an idea. In this regard, an advocate must be formally recognized, and the advocate's ability to influence the "selling" of an option must be considered as part of making the decision. If a course of action is sold too well, the decision maker should be alerted and take special interest in alternate courses of action before making his/her decision.

The survival and well-being of the organization may become more important in the minds of its members than the organization's mission and the reason it was created. If organizational survival becomes an issue which influences the decision, Model III occurs.

For purposes of this paper, Model III will be considered when the following occurs.

1. The decision made and the action taken are the result of bargaining with other organizations or individuals.

2. The decision made and the action taken are made in the organization's or individual's interest (present or future).

3. The decision reached and the action taken are made with the welfare of the organization foremost in mind.

4. The decision made and the action taken are the result of individual salesmanship of an idea, not because the decision or action was the best way of accomplishing a given task.

An important modification to Allison's framework is also being added to Model I for purposes of this study. It will be termed *Model I Plus (Model I+).* This designation explains an outcome when an individual, acting primarily inside Model I, acts voluntarily to support another organization beyond a rational requirement to do so. Model I+ differs from Model III in that this action, completed with empathy and understanding of the other actor(s), is selfless. In Model III, the act is used to gain bargaining power or leverage for later benefit. So a decision or action will be considered Model I+ when the decision maker, not bound by rational requirement, at no cost to the larger organization, implements the decision or action to help others, knowing he will not realize a direct benefit in doing so.

> The decision reached and the action conducted are accomplished to benefit others when the actor was not rationally compelled to do so, the action does not harm the larger organization, and the actor does not expect to realize a direct gain. (Model I+)

Observations

Not all decisions and actions have to be accomplished in one specific manner or method. Often there are several ways to achieve the same end. In Operation Desert Storm, with an abundance of resources, there were alternate ways to accomplish many of the specific missions. This, in turn, led to frustrations and rivalries because many individuals had a workable solution, but only one could be implemented.

The amount of time a leader has to devote to the implementation of a decision will affect how closely the vision of his decision is translated into action. When decision makers have little time to spend on oversight of a decision's implementation, there exists a greater opportunity for the final action to diverge from the leader's intention. Some leadership styles advocate the subordinate taking a great deal of initiative in the implementation, such as *auftragstaktic.*

Individual decision makers and actors, due to constraints beyond their control, may be forced into Model II/III operating modes. One common reason, among several possible reasons for this situation to occur is simply a lack of enough information when a decision has to be made. To be Model I, the decision maker requires all necessary information (in theory, perfect information) to make a purely rational decision. If adequate information is not available, a rational decision can be made, but it may not be the best solution possible for the given problem. Individuals can perform within a Model II/III with the best of overall intentions, but without adequate

information, they cannot reliably perform inside Model I. In other instances an individual will often *honestly* believe that his/her suborganization, which has provided and supported the individual, is inherently right. The individual will believe supporting the suborganization position will result in doing what is best for the larger organization. These individuals will often be inclined to support standard practices because of their faith in the organization and the organization's ideas. Some individuals become, to varying degrees, "organizationally brainwashed."

Organizational brainwashing may occur in varying degrees. It occurs in most individuals to some degree. Some organizational brainwashing is even desirable. It allows commanders to predict unit actions when given specific directions. But it becomes dogma when organizational brainwashing begins to cause significant deviation from the best possible decisions and actions, and is considered undesirable.

It is possible for individual actions to fall inside more than one model simultaneously. To some extent, complex decisions and actions can include a rational process and be partly the result of organization standard operating procedures and partly the result of bargaining. Upon reflection, this is more likely the norm than packaging an organization's output neatly inside one process.

It must be kept in mind the models are simply tools to analyze and study issues. In reducing (or simplifying) an organization's complex decision making and implementation process in order to study and analyze it, a certain risk is taken. That is, analysis results will not be accurate with respect to the "real world/entire organization," but only accurate in regards to the simplified organization. Reducing complexity and complex issues involves risk, because reduction may lead to an understanding which does not reflect reality. The study may lose some of its richness in isolating some of the key issues. However, lessons are learned from the remaining "nuggets" with important points still valid and intact.

Having outlined the methodology, this study will now examine command relations through a series of issues affecting joint operations. Review of these issues will be in three parts. First, the issue will be examined, highlighting joint operations and command interaction. Second, the command interaction will be analyzed using the three previously discussed models. Third, in light of the command interaction, the effect of the decisions on joint operations will be examined and evaluated.

Notes

1. Graham T. Allison, *Essence in Decision: Explaining the Cuban Missile Crisis* (Harvard University: HarperCollins Publishers, 1971).

2. Joint Chiefs of Staff Publication 1-02, *Department of Defense Dictionary of Military and Associated Terms* (Washington, D.C.: Joint Chiefs of Staff, 1 December 1989), 196.

3. Joint Chiefs of Staff Publication 2, *Unified Action Armed Forces* (Washington, D.C.: Joint Chiefs of Staff, December 1986), 1–3.

4. Allison, 4–5. Note: Allison actually refers to Model III as the Government (Bureaucratic) Politics Model. For the purposes of this analysis, it will simply be cited as the Bureaucratic Model.
5. Ibid., vii.
6. Ibid., 10–38.
7. Ibid., 6.
8. Ibid., 67–100.
9. Ibid., 6.
10. Ibid., 144–184.

Chapter 3

The United States Navy

Clearly, the Navy aircraft were available for the overall air campaign and would be used as best suited for the mission, but they would do so in the context of a joint air campaign. There was a natural desire at the staff level in Riyadh for the Navy airplanes to be treated like Air Force squadrons: you tell them what kind of ROE, what time to take off, what route to fly. But it doesn't work that way on an aircraft carrier. You've got cycle times, you've got times when you can load and when you can't load. You've got to be able to understand that flying airplanes off ships has certain constraints as far as timing, sequencing, loading, marshaling and those types of operations. Allowing a more flexible approach in regards to the Navy was appreciated. I didn't have to go to war over it because it was already agreed and accepted by General Horner.

—Vice Adm "Hank" Mauz
Commander, Navy Central Command

Beyond Visual Range Rules of Engagement

The US Navy (USN) wanted to extend their normal beyond visual range (BVR) rules of engagement (ROE) over much of the Gulf theater. However, General Horner (CENTAF commander and JFACC) and his staff were concerned about possible air-to-air fratricides.[1] Many Coalition aircraft would be operating north of the Saudi Arabian/Kuwait border continually when the war began. Further complicating the problem was the employment of stealth aircraft. To avoid shooting friendly aircraft, Horner introduced stringent BVR ROEs. These ROEs required friendly fighters to make two types of independent verifications that detected/suspected bogeys were indeed bandits before air-to-air ordnance could be expended.[2] Navy aircraft, however, did not have the onboard capability to accomplish this task. The F-14s could interrogate the Identification Friend or Foe (IFF) transponders, but did not have more advanced electronic identification features. The F/A-18 had the advanced electronic features, but could not interrogate the IFF.[3] Most USAF fighters, on the other hand, had both capabilities on their aircraft, thereby ensuring a high degree of confidence and an advantage over the Navy aircraft in firing BVR.

On BVR ROE, Horner stated, "Long before the war started, we concluded we couldn't live with unrestricted BVR[4] because of the stealth at night, primarily. And we also concluded it wasn't required because the Iraqi's weren't going to pose that big a threat. We were going to take out their command and control and then we were going to shoot them down. So, the decision was one of practicality, not one of doctrine."[5]

Corder commented,

> Our rule was you had to have two separate, independent, physics-based ways of identifying the guy as hostile before you could shoot him. The problem is, the F-14 and the F-18 have only one way you can do it. Of course, the F-15 has several ways you can do it. *My perception was the Navy thought the reason we were insisting on two independent means of verification was because we were going to take this opportunity to wrest the Top Gun medal away from these guys* (emphasis added). It was a manhood thing.[6]

The F-14 with the Phoenix could fire at targets 55 or 60 miles away, and the Navy wanted to be able to employ it.[7] The Navy wanted to use AWACS (Airborne Warning and Control System) to distinguish enemy aircraft from friendly, but, again, the USAF commanders were reluctant. AWACS, by itself, was unsatisfactory because AWACS-identified positions can be off as much as five or six miles.[8]

The USN normally trained for a less restrictive ROE. In "Blue Water"[9] they could engage anyone that entered their fleet battle space who was not identified as friendly. They were not accustomed to the BVR measures imposed by the Joint Force Air Component Commander (JFACC). One reason for the difference in BVR ROE is the possible repercussions of enemy aircraft breaking through to an aircraft carrier. Aggressive forward defense was critical to the successful defense of the carrier group against anticipated Soviet-style air attacks.

A possible reason for the difference in these capabilities was the traditional way in which the different services practiced to employ fighter aircraft. The USAF looked more toward the "air-saturated" central European environment wartime contingency. There, literally thousands of fighters from both NATO and Warsaw Pact forces would be mixed in the air battle, making enemy fighter identification difficult. As a result, the USAF developed and procured extensive identification systems to avoid or reduce fratricides. The USN, on the other hand, expected and practiced to operate its carriers and aircraft in a more independent and controlled environment. In this more controlled contingency environment, the Navy fighter aircraft could and would enjoy freer BVR ROE without unreasonably endangering friendly aircraft. Operation Desert Storm, with its large numbers of multinational and multiservice aircraft, more closely resembled the USAF central European environment than the USN independent/contingency model.

Within the Navy, at levels below Admiral Arthur, there was much frustration over the USN's inability to employ the Phoenix Missile System freely. Frustrated naval officers helped influence Arthur in his decision to pursue a more liberal BVR ROE.[10] At least some USN pilots, before and during the conflict, believed the USAF was establishing a BVR ROE, not so much to prevent fratricides, but to optimize USAF air-to-air capabilities at the expense of the USN. The Navy representatives to the JFACC's Special Planning Cell offered, "This war was utilized by the USAF to prove 'USAF air power,' not to prove that combined forces or even joint forces could force multiply and more effectively conduct the war. For example, the F-14 was

originally restricted from forward combat air patrol (CAP) positions because CAP aircraft were required to have the ability to electronically identify (EID) and interrogate IFF, friendly or foe."[11] It should be noted that the BVR ROE controversy inside the USN was not entirely homogenous. Dependent on the carrier, the opinions differed to a degree.[12] An explanation why this occurs is included in the analysis.

Finally, only a few days before the war, the Navy belief that it was being slighted by the USAF on BVR ROE was forwarded to Arthur, who confronted Horner and pressed for a more liberal BVR ROE policy. Horner conceded that the USN had legitimate concerns about the restrictions in BVR ROE, but believed the restricted BVR ROE was the best way to conduct business. The two flag officers agreed to disagree about the issue, and Arthur indicated he would address the issue with Schwarzkopf.

Horner remembers,

> Stan Arthur came to see me because the F-14 guys wanted to use the Phoenix. I understood exactly where he was coming from, and I asked Stan, "Please send your case to Schwarzkopf, and let him adjudicate it. This is one area where we have an honest difference of opinion. Both sides have validity." So he did that. Unfortunately, Schwarzkopf called me in and said, "Explain this to me." So, I was put in the position of defending Stan in front of Schwarzkopf, which I did. And then he said, "What is the alternate argument?" And then I gave him my argument, and he said, "Write me that answer and I'll send it." So, I just wrote the answer back to Stan, "I understand where you are coming from, but the trouble is the risk is higher than the benefit." Quite frankly, what we did after that was give the F-14s BVR shot capability if we knew that there were no allied aircraft in a given area.[13]

Both senior officers remained on very good terms with one another, respecting the other's different viewpoints. Neither believed the other to be harboring underlying motives and, in essence, both believed the other was operating in a rational, objective manner.[14]

Horner and Arthur were both acting rationally—they just disagreed. In hindsight, Horner had the better argument, realizing at the time, the risks to friendly aircraft outweighed the potential good the more limited BVR ROE would have produced. In fact, the Iraqi air force never significantly threatened Coalition attackers after the first few days. And even during the first few days, the Iraqi fighters were handily dispatched by the Coalition air-to-air teams. Being empathetic and conciliatory, Horner discussed the issue further with Arthur and agreed to open up some areas for less restrictive ROE.[15] This pleased Arthur. Since the JFACC had agreed to more liberal BVR on a limited basis, it looked promising that the F-14s would be allowed to employ the Phoenix missiles in a less restrictive manner. However, this was not to be the case.

Although Arthur and Horner had agreed to open some areas for less restrictive BVR ROE, some officers below Horner resisted. They were concerned that less restrictive BVR ROE would lead to fratricides and were not aggressive about implementing Horner's agreement. One officer stated aircraft strike sorties were scheduled, to some degree, to prevent less restrictive BVR ROE

implementation.[16] Most of the USAF officers on the JFACC staff truly believed the less restrictive BVR ROE was unnecessary and increased the risk for Coalition aircraft. This belief, in the end, led to some passive and some subtle resistance to a more liberal BVR ROE. Corder stated,

> By the rules, you had to be identified as hostile. Being unknown was not a reason to shoot, especially one airplane. What the . . . is one airplane going to do? Now, if there are 70 of them coming and you cannot tell who they are, then that is something different. Another thing we agreed to do was that we would sterilize areas when we could. But we weren't going to sterilize just so they could shoot their Phoenix when we had other business. For example, they wanted us to sterilize a 100-mile radius around Baghdad so they could fly 100-mile circles around Baghdad and shoot anything that came out. And this is at night! And I said, "Well, that's fine, except we have other fish to fry."[17]

Although Horner had agreed in principle to make the BVR ROE less restrictive, the Special Information Section (SPINS) in the Air Tasking Order (ATO)[18] was written in such a manner as to prevent the less restrictive ROE from being implemented.[19] After a period of time, Arthur realized the SPINS was effectively blocking the less restrictive ROE from being implemented. However there were more critical areas that required his time and effort. Arthur was unable to spend the time necessary to get the less restricted BVR ROE implemented.

An incident which complicated the BVR issue occurred on the first night of the war. On that night, a USN A-6 Intruder was shot down over southern Iraq. An unqualified air controller, who was the USN liaison officer on board the E-3 Airborne Warning and Control System aircraft stated "it looked like a *blue-on-blue* incident," with a USN F-14 Tomcat inadvertently firing a missile against the A-6.[20] This was reported up the chain of command to General Corder, the CENTAF deputy commander for Operations. When Corder informed Horner of the incident, Corder indicated Horner became furious and at the time, was less inclined to accommodate the Navy in making the BVR ROE less restrictive.[21]

Arthur remembered the incident very well. He commented,

> That supposed incident happened on the first night. Supposedly, an F-14 on an A-6. But it wasn't even close. I laid it all out and went back to Horner. Took a . . . of a lot of work to sort it all out. But there was absolutely no blue-on-blue. A-6s had entered the area, and there were some pretty screwed-up tactics involved. Trying, in the heat of battle, to go back and reconstruct this thing, I lost a lot of time. But we did get a good reconstruction. The surprising thing was that when I went back to Horner sometime later and laid it all out, Horner said, "Yes, that was a bad call." So, we got it all sorted out, but it lingered. It was done for a very specific purpose. Somebody thought there was a blue-on-blue, then they rode it just as hard as they could. I'll never forgive him for that.[22]

However, Corder remains convinced there was a USN blue-on-blue incident. Corder recalled,

> Remember the A-6 that they lost on the first night in H-2, H-3 area? I believe he was shot down by an F-14 who fired BVR at night. The Navy was still mad at me with this BVR ROE. So, they made their own kill box around H-2, H-3. They looked

> in the ATO and said, "OK, this is where we use unrestricted BVR." And they shot him down. And the Navy knows it. Because that is where I heard it from. That will never be publicly acknowledged by anybody. But all arguments over BVR evaporated that night. There was no more talk about BVR after that.[23]

When Horner was questioned about the incident after the war, he simply stated, "As far as them shooting down the A-6, that was a rumor which was never confirmed. I do think it certainly quieted down the [BVR] controversy for awhile."[24]

Arthur was somewhat disappointed about the limitations placed on the USN aircraft. He understood the reasoning and, in general, agreed with it. But, he believed it was possible to accommodate both restrictive and less restrictive BVR ROEs. Arthur believes the Coalition's failure to do this resulted in less than optimum air-to-air operations. The Coalition did not take advantage of the F-14/Phoenix Missile System to the maximum extent possible and that during the Iraqi air force exodus to Iran, the longer range Phoenix might have shot down a larger number of fleeing aircraft.[25] (At the time, the allied leaders did not know the reason for the exodus; neither did they know if the diverted Iraqi aircraft would be redeployed against the Coalition from Iran.)

After interviewing all the senior participants regarding this issue, this author believes the fratricide did not occur. But until Arthur could complete his investigation, it appeared that the fratricide did occur. It was a naval officer who made the initial assessment. Corder, however, was not acting within Model III behavior. Based on the facts at the time, Corder honestly believed the Navy had shot down one of their own and took action to prevent further such incidents.

Analysis

Horner and Arthur enjoyed a good component commander relationship. Each respected the other and interacted in an open, straightforward manner.[26] Horner and Arthur made decisions that were generally the result of Model I interactions. However, the two individuals did have some honest disagreements. One of these disagreements was discussed: the issue of BVR ROE.

Horner believed in a more restrictive BVR ROE, but in fairness and in the interest of good interservice relations, he agreed to accommodate the less restrictive BVR ROE on a limited basis. Horner's agreement to a less restrictive BVR ROE for limited periods, was *Model I+*. The unrestricted BVR ROE, however, was never really implemented. This was largely due to the failure of the Horner/Arthur agreement to overcome the Model II bureaucratic mass. Some officers in the USN believed the USAF was out to get more kills than the Navy and wanted to "compete" more evenly with the USAF. USAF planners were concerned about fratricides, especially with the F-117s.

Although Horner supported an effort to open up some areas to the less restricted BVR ROE, a lot of latitude was given to subordinate commanders to implement it. The subordinate commanders and staffs believed Horner

thought the less restrictive BVR ROE unnecessary and, therefore, were not aggressive in implementing it. The alleged shootdown, supported by the unqualified USN officer on the AWACS, lent additional credibility to the USAF argument for a period of time, and provided a reason to avoid the less restrictive ROE. Horner might have overcome this Model II outcome with more forceful direction to his staff.

There are four reasons the Horner-Arthur agreement did not carry enough weight to overcome the Model II bureaucracy. First, insufficient emphasis was placed behind the less restrictive BVR ROE initiative by the flag officers. There were, however, a myriad of other important issues requiring Horner's and Arthur's time and efforts. Therefore, the leaders could not place enough time on the issue to implement it successfully. Second, the agreement between Horner and Arthur was more *accommodating* guidance than a strong, hard directive. This accommodating guidance carried less weight than a vigorous directive, and the Model II bureaucracy had enough weight to stall the initiative. The third reason revolves around the alleged USN blue-on-blue incident. This alleged incident provided support for individuals opposed to the less restrictive ROE to successfully delay it (Model II). Even though the blue-on-blue incident was never substantiated, for a period of time the *possibility* of it occurring carried weight. The fourth reason was inadequate Navy representation in Riyadh. With only a one-star and a liaison team in place, it was more difficult for naval personnel to effect changes and influence the Air Force-dominated JFACC staff. Liaison officers cannot replace rank and staffing.

Arthur's location during the war aboard the USS *Blue Ridge* made it more difficult for him to interact effectively with the JFACC and the JFACC staff. While there is still debate today between Arthur and Admiral Mauz as to where the commander, United States Navy Central Command (COMUSNAVCENT), should have been physically positioned, there is little doubt that COMUSNAVCENT and his staff would have been more effective interacting with the JFACC and his staff in person.[27] Liaison officers did not fill the void.

Some officers in the Navy perceived the USAF acting Model III (i.e., the USAF getting the bulk of the air-to-air kills at the expense of the Navy). This perception had an operational impact. It led to frustrations between the services and to a degree, less cooperation. One example of this was when one Marine liaison officer began working "around" the ATO process to divert more air to Marine targets. He stated, ". . . the Navy, not too happy with the Air Force, was happy to cooperate in working around the ATO."[28] This diversion of air to the Marines will be examined in more detail in the next chapter, but essentially, some strike sorties were diverted from their primary planned targets. Navy perceptions of USAF Model III behavior contributed to their willingness to help the Marines circumvent targeting, effecting operations.

Group-think was prevalent within the Navy during the Gulf War and this exacerbated Navy perceptions of USAF Model III behavior. Group-think can easily occur when large numbers of individuals work and live together. This

was noted by Navy Capt Steve Ramsdell when he visited each aircraft carrier during the war while working for the Naval Historical Center. In regard to perceptions and decision making on ships, he noted the following.

> In the case of Desert Storm, each one of the ships had a different perspective on the war than every other one. One of the most interesting observations I made, I thought, in terms of just command, was every one of these ships had a unique perspective on the war. No matter who you talked to, whether it was the flag officer, the captain of the ship, or an enlisted guy on the flight deck, there was uniformity on each ship. They would talk the same way about the war: the same issues, the same perspectives. It was really homogeneous on each ship. And it was different from every other ship.
>
> And so, from a leadership perspective, the point I am making is, it would really concern me if I were a leader and I was not getting many dissenting points of view. It is really hard, I think, for a commander under those kinds of circumstances to get much good advice. It is precisely group-think. And it is not because these guys aren't dedicated. It's not because they are trying to seek favorites, because they actually agree. They come to agree because they work at it so hard.[29]

It is important to note that group-think must be carefully avoided. It can happen *not only* on ships, but in any organization where individuals work very close together for extended periods of time. It becomes more important to be a "team player" than to advocate different ideas, which are often seen as dissent. This type of perspective is insidious because officers, trying to be *team players*, really believe they are acting and deciding for rational reasons, not because they are being influenced by others or an organizational perspective. Group-think can lead to Model II and sometimes Model III behavior.

One must keep in mind there were significant differing service perspectives below the Horner/Arthur level. These differing perspectives often involved group-think and affected not only the BVR ROE issue, but also other issues between the USN and USAF such as strike planning, strike implementation, and tanker allocation. While the highest levels of command functioned in a Model I rational environment, lower levels of command often functioned in accordance with Model II and with perceptions of Model III. Since organizational output is affected by the entire organization, not just the highest level of leadership, it is accurate to state the BVR ROE implementation was, in the end, a combination of the three models. The restricted BVR ROE was implemented for Model I reasons. However, the less restrictive BVR ROE, agreed to by Horner, was not implemented because of both Model I and Model II/III explanations. Personnel in the USN believed the USAF was acting Model III by restricting the USN participation, although this author does not believe this to be true.

There was concern by the USN that the USAF was placing itself in a position to garner the bulk of the air-to-air kills. The restricted BVR ROE was seen to be one method of accomplishing this. But while many USAF personnel were pleased that this situation favored the USAF, the restricted BVR ROE was nonetheless adequate and effective in mission accomplishment. The USN

did not possess the state-of-art identification equipment the USAF possessed. While some USAF actions can be explained by Model II, getting most of the air-to-air kills in the war was not a significant motivation to the USAF. However, it was important enough to the USN that a number of naval officers became very frustrated when it appeared the USAF would be able to kill more aircraft. The air planners were concerned with gaining air superiority and striking targets, not winning the air-kill competition. By not directly following Horner's guidance to open up some airspace for a less restricted BVR ROE, Model II explains some of the actions by the air planners. They believed the less restricted BVR ROE was unnecessary. Contrary to the JFACC's Model I+ guidance, they passively resisted his direction. Model II, regardless of rationale, prevailed.

This issue also highlights the importance of each service understanding that "joint" does not mean equal. Joint simply means that elements of more than one service participates. The amount of participation should be based on the rational employment of weapon systems, not on an equal, and possibly irrational basis. Desires for one's service to participate in operations to justifying future funding are Model II. Mission and situation determine the weapon or weapon system. It is not the weapon or weapon system that determines the mission.

The impact of the Model II actions and Model III perceptions could have had a greater impact in a more closely contested conflict. In the Gulf War, the abundant air resources allowed some inefficiency in command relations and joint operations without a corresponding degradation in combat capability. In future conflicts, where the United States might not enjoy overwhelming capability, such degradation in joint integration could be disastrous.

Overall in this issue, the USN below the component commander level believed the USAF was acting Model III. The component commanders came to an understanding, but at levels below them, the USAF did act Model II to some degree. The USN realized this, became more frustrated with the USAF, and reacted Model II, sometimes in instances concerning other issues.[30]

The following is a summary of command interaction as it impacted the BVR ROE.

- The CINC, CENTAF commander and the NAVCENT commander operated Model I.
- The CENTAF commander operated Model I+.
- In the USN, below the component commander level, Model II behavior occurred.
- In the USAF, below the component commander level, Model II behavior occurred.
- Some in the USN believed the USAF was acting Model III at USN expense and this in turn exacerbated problems in integration.

Joint Operations

Insofar as joint air defense is concerned, the resulting joint effort in the Gulf War was adequate and effective. The final result of the air defense effort was that no Coalition surface forces were successfully engaged by Iraqi aircraft and there were no confirmed Coalition air-to-air fratricides. The restricted BVR ROE in the air defense role was more than adequate for the circumstances in the Gulf War. Arthur, however, believes the Coalition might have been more successful in offensive operations against Iraqi aircraft fleeing to Iran if the BVR ROE had been less restrictive. In retrospect, the destruction of those fleeing aircraft would not have significantly affected the outcome of the war. The debate continues. In the future, much of this issue could be resolved before an actual conflict situation arises. This can be accomplished by upgrading identification equipment on naval aircraft while jointly developing and practicing interservice BVR doctrine and/or ROE. Each of the services must appreciate the others' concerns and primary procedures for accomplishing their differing missions.

Notes

1. Fear of fratricides was a strong concern for a number of reasons. There were not only aircraft from each of the US services, but also from a dozen other nations. Each service and each nation had different capabilities (and limitations) in identifying other aircraft and being identified by friendlies. To complicate matters further, both the Coalition and Iraq had French-built fighter aircraft. Then, simply by the sheer numbers of aircraft to be employed, sorting bandit (see next footnote) from friendly could be difficult. Another complication was the employment of the F-117. Stealth does not result in invisibility, but a much reduced radar return. The F-117s, in efforts to maximize the stealthiness of the aircraft, did not transmit on the radio nor respond to Identification Friend or Foe (IFF) interrogations. For these reasons and more, Horner was very concerned Coalition forces might accidentally shoot down friendly aircraft.

2. The term *bogey* refers to an unknown aircraft or unidentified aircraft. The term *bandit* refers to a confirmed enemy aircraft.

3. Some of the features mentioned include classified material.

4. If a friendly aircraft visually identifies an enemy aircraft during a conflict, the rules of engagement generally allow him to fire upon the enemy without gaining further approval. However, when a friendly aircraft observes another aircraft through electronic means (radar, e.g.) and cannot visually identify the observed aircraft as an enemy, the rules to fire are generally more restricted. In the case of radar only contact, there is always a chance the observed aircraft is friendly. Most of the time it is better to allow the suspected enemy aircraft to escape than risk shooting down a friendly one. There are instances where friendly aircraft are cleared to fire without visual identification. These instances include, but are not limited to, 1) times when it is known no friendly aircraft are within a given area; 2) when it is so paramount no enemy aircraft can break through and attack friendly positions that commanders are willing to risk a friendly shootdown; or 3) when suspected enemy aircraft can be positively identified through multiple methods.

5. Charles A. Horner, COMUSCENTAF, JFACC, interview with author, Maxwell AFB, Ala., 27 December 1993, 5.

6. John A. Corder, interview with author, Dallas, Tex., 22 November 1993.

7. Stan Arthur, Gulf War COMUSNAVCENT, interview with author, Pentagon, Washington, D.C., 23 March 1994.

8. Corder interview.

9. The USN, prior to the Gulf War, had trained for combat against its primary adversary, the USSR. One of the primary contests was to be for control of the sea. A number of the large battles involving the USN were foreseen to take place far from shore. In general, this type of air-to-air scenario would be different from the central European scenario the USAF was training to fight. At sea, it would generally be easier for the USN to identify friend or foe.

10. Steven U. Ramsdell, telephone interview with author, 21 January 1994.

11. Smith and McSwain, "Desert Shield and USN Strike Planning," December 1990. Smith and McSwain were naval officers assigned to Riyadh for liaison with the JFACC and the JFACC staffs; and Ramsdell telephone interview.

12. Ramsdell telephone interview, 8–9.

13. Horner interview.

14. Ibid.; and Arthur interview.

15. Horner interview.

16. Anonymous source (active duty USAF).

17. Corder interview, 32.

18. The ATO directs and coordinates the planned flying missions. Included in the ATO is the SPINS. The SPINS provide more specific information and direction for flight crews to follow.

19. Anonymous source (active duty USAF).

20. Corder interview.

21. Ibid.

22. Arthur interview, 9.

23. Corder interview.

24. Horner interview, 6.

25. Arthur interview.

26. Ibid.

27. Robert J. Scheller, Jr., *Persian Gulf Turkey Shoot: The Destruction of Iraqi Naval Forces during Operation DESERT STORM* (Washington Naval Yard: US Navy Historical Center, May 1993), 8.

28. Pat Beekman, USMC liaison officer to the JFACC staff, telephone interview with author, 10 February 1994.

29. Ramsdell telephone interview, 8–9.

30. An example where this carried over to another issue was when, in some instances, the USN supported USMC in working around the ATO. This will be discussed in the next chapter.

Chapter 4

The United States Marine Corps

I think the Marines should serve the CINC. Period. I don't see many self-contained campaigns and that really wasn't what we ran during Desert Storm. The JFACC determined how Marine Corps' aviation, in terms of the entire campaign, was going to be used. That's the way it should occur. We can certainly work within that umbrella and ensure that Marine close air support needs are met by Marines. But as happened in this war, I needed more help. I mean, I had a tremendous number of sorties provided us by the Air Force. And at the same time, Marine aviation crossed over and provided support to others. So, I see us continuing to fight in a joint way. We don't really train to fight the insular battle any more.

—Lt Gen Walt Boomer
Commander, Marine Control Command

Marine Air Operations

Most of the joint concerns of the US Marine Corps (USMC) were abated early during Operation Desert Shield. For Gen Walt Boomer these concerns included 1) the USMC (both ground and air) maintaining autonomy within the theater and not being apportioned out among other forces; 2) the possible conduct of an amphibious operation; 3) USMC reporting directly to the CINC (that is, not through a separate land component commander) with Boomer maintaining command of both Marines, Central Command, (MARCENT) and the 1st Marine Expeditionary Force (IMEF); and 4) maintaining direct control of USMC tactical fixed-wing assets. The resolution of the last two concerns had a significant impact on the integration of Marine air operations.

First, the Marines wanted to be left intact as the IMEF. This was done and the IMEF was given its own area of operations rather than being assigned under other units.

The second concern was the conduct of one of the USMC's specialties and primary missions, an amphibious assault. Eventually, the threat of an amphibious landing *was* used very effectively as a deception to mislead Iraqi forces, but the landing itself was not accomplished for Model I reasons. These reasons included the threat of high casualties, probability of significant collateral damage to Kuwaiti infrastructure, and limited tactical utility of this operation.

Third, the Marines wanted the IMEF commander to be able to report directly to the theater CINC. While on the surface this might not seem important to command relations and the conduct of joint operations, it was. With some deliberation, the CINC agreed to this. This meant, however, that

IMEF, essentially a corps-sized unit,[1] would enjoy direct reporting to the CINC while the US Army corps commanders would have to report to the CINC through the 3d Army commander, General Yeosock.

Fourth, Boomer wanted to function as both the commander, IMEF, and commander, Marine Central Command (COMMARCENT). Holding both positions and reporting directly to the CINC would give Boomer a tight control on Marine Corps participation. The two positions, however, require two different perspectives: to prepare for combat and to conduct it. As commander, IMEF, Boomer's primary responsibility was to plan and direct US Marine tactical operations in their area of responsibility. As COMMARCENT, his primary perspective and concern would be theater-wide: to integrate US Marine operations into all joint and combined operations.

There was some disagreement between the Marine Corps Commandant, Gen Alfred M. Gray, and Boomer as to whether COMMARCENT and commander, IMEF, should be the same person. General Gray wanted COMMARCENT to be a different three-star flag officer stationed in Riyadh. Boomer disagreed and maintained he could effectively perform both functions from his forward headquarters in Jubail. Boomer observed, "I felt very comfortable being dual-hatted. That being said, there was a degree of paranoia back in Washington at this headquarters that somehow the Marine Corps was getting the short end because I wasn't at the table every night in Riyadh. Nothing could have been farther from the truth."[2] In the end, Gray's plan to move MARCENT headquarters to Riyadh, proposed in mid-December, was scuttled by Schwarzkopf because the CINC did not want significant command changes occurring so near to the commencement of hostilities.

The good working relationship established between Schwarzkopf and Boomer influenced the CINC in his decision to support Boomer's positions on the USMC maintaining direct reporting to the CINC and maintaining MARCENT Headquarters away from Riyadh. On their working relationship Boomer commented as follows:

> I had never met, except only very, very briefly, General Schwarzkopf. So, our relationship had to be built from scratch in the combat zone. And I think it developed favorably from my perspective. And, I believe, favorably from his. We talked about some rather sticky issues in the beginning, but we had very good conversations. For example, the ground component commander: should the Marines come under what would naturally be an Army ground component commander? We discussed this issue face to face. I told him on balance that I didn't think that that was a particularly good idea for this particular campaign. To make a long story short, he said he agreed, and his decision, which I think he had already formulated, was that he was going to really be his only ground combat commander.
>
> Our relationship was as good, I think, as perhaps anyone had with him. That was probably because I was not in Riyadh. We communicated over the phone probably once or twice a week. I flew to Riyadh from Jubail probably every two weeks, maybe three weeks at the outside. That worked extremely well for me and I think for him. I was represented in time by a major general. The bottom line is that I thought we had a good, positive, fruitful relationship. He used his Marine Corps resources wisely, and he used them based on my counsel.[3]

The decision to leave Boomer in both positions would influence the fifth issue, control of air power. Marine Corps doctrine and the 1986 Omnibus Agreement argue that a synergistic effect is created when air power and ground forces combine properly. In other words, the Marine Corps believes that the sum of combined effects is greater than the sum of the two operating separately. The Marine maneuver units also possess less organic indirect firepower (artillery) than equivalent-sized US Army units. The US Marine Corps makes up for this shortfall with its organic, fixed-wing tactical air power, which the US Army does not possess.

Marine aviators generally pride themselves first and foremost on the support they provide their ground forces. Gen Royal Moore, commander of the 1st Marine Air Wing during the Gulf War emphatically stated, "Marine air was there when needed."[4] The bulk of Marine tactical aviation training focuses on close air support (CAS) and close interdiction. In addition to the training emphasis, most Marine aircraft are designed for shorter combat ranges.

USAF doctrine stresses centralized control and decentralized execution. Most USAF airmen believe all tactical air power resources, from all services to include the Marines, should be under central control of a JFACC and allocated where needed the most.[5] Tactical fixed-wing aviation is very expensive to operate and maintain. Husbanding resources in one area can only come at the expense of other areas. Horner believed tactical air power needed to be centrally coordinated, but was less emphatic about air power being centrally controlled in respect to operational employment. From the beginning Horner did not attempt to gain operational control of US Marine air, but did insist that excess sorties be made available to him and that all Marine sorties be on the Air Tasking Order.[6]

The Marine component and the Air Force component commanders, Boomer and Horner, immediately struck off on the right note. Boomer recalls the following:

> Horner and I are very close friends. I had never met him prior to Desert Shield. My relationship with the Air Force was primarily with him. I had essentially no interaction with Glosson or anyone else in the Air Force. It was strictly a Boomer to Horner. I arrived in Riyadh about two days after Horner and General Yeosock. Horner was the acting CINC on the ground. The first thing he said to me was, "Walt, I don't want your . . . airplanes. All I want is for us to work together and win this campaign. Win this war." My thought was, here is a guy I can like and get along with and work with. And it went uphill from that point on.
>
> The criticality of the relationship between the component commanders is absolutely essential. And it's necessary for the component commanders to develop that relationship, to make it happen, to work on it, to nurture it. We came to trust each other. And, as a result, many, many things that could have spiraled out of control in terms of arguments and disagreements and that then would have been placed on the plate of the CINC (who needed nothing else on this plate) never occurred. We simply understood each other, worked out any disagreements that our staffs may have had. That kind of relationship heads off staff disagreements; keeps them submerged down there where they belong, way down. That is really the kind of relationship that we had.[7]

Horner agrees his relationship with Boomer was excellent. On the component commander level they worked well together. Horner stated, "Boomer and I worked well together. It wasn't any effort. Obviously, the Marine air is going to support the Marines to the maximum extent just because of the payload and range. It made sense. Common sense. You do common sense things and don't worry about doctrine. Doctrine is . . . on things like that."[8]

However, at levels below the component commander level, the relations were not as smooth. Glosson was in charge of air planning for the JFACC. General Moore was the commander of the Marine air wing. Both had very specific ideas on how the air campaign should be conducted and Marine air integrated. Boomer admitted, "Now, in terms of control of air space, General Horner and I were probably a lot more flexible than our staffs. We are not going to get hung up on air space and air control. Let's just get the job done and we will work out something."[9]

Horner also felt that below the component commander level significant frictions existed. Horner noted,

> Royal Moore was the Marine Air Wing commander and worked for Walt Boomer. However, his assets were tasked through the air tasking order. The main Marine liaison in Riyadh on Marine air was Joe Robben, a colonel. What he did was put the Marine air into the ATO. Of course, you know, the Marines sit by this joint agreement [1986 Omnibus Agreement] that says we get excess air. There is no such thing as excess air. It's all air and it's all required. In order for them to fly, they had to be in the ATO. They did things such as put their first sortie in and then turn the aircraft using the same call sign and the same squawk. And I had no problem with that; it made sense. Royal Moore thought they were getting away with something, but they really weren't. For example, Royal Moore pulled all the Marine air out of the ATO two nights before the war started. When I sent a message to Walt Boomer, he would get it all put back in. There were efforts in MARCENT to frustrate the JFACC. But Walt Boomer always kept them in line. We really had no problems.[10]

Horner brings up several important points. The first is the 1986 Omnibus Agreement. This agreement states the Marines will obligate Marine air in excess of their air support needs to the JFACC for tasking. There was and still is controversy about defining exactly what "excess air" means. During Operation Desert Shield it was worked out before the start of the air campaign that all the A-6s and 50 percent of the F/A-18s were to be dedicated to the JFACC effort. Then, when Marine air was needed for battlefield preparation, all of it would be rededicated to IMEF.

Next is the ATO issue. The Saudis insisted that all sorties flying in Saudi Arabia had to be in the ATO. This agreement was established in August; the Saudi Arabians were sensitive about having foreign aircraft flying over their soil on a regular basis with no apparent Saudi control. Horner proposed the ATO as the method for the Saudis to control the air effort over their country, by giving the Saudis "approval" authority over its content. This move to give the Saudis control over foreign flights in their air space alleviated their concerns.[11] The ATO proposal also gave Horner considerable leverage in forcing all air forces into a centralized execution plan. Since all the air forces

had to be in the ATO to fly, the ATO became a reality to other services who had little or no practice using it.

Marine staff planning officers at Riyadh, believing the Marines were not being supported as they should and with the loyalty to the US Marine Corps foremost in mind, began undermining the approved tasking process. In effect, the Marine officers were changing command directed/approved targeting in order to place more strikes within the Marine Corps area of responsibility.[12] Lt Col Dave Deptula, USAF planning officer on the JFACC staff, remarked,

> During the execution of the air campaign, it came to my attention that the way the Marines were operating was outside the system that we had established for planning, processing, and then putting information into an ATO before execution. I was bothered by this; for all intents and purposes the Marines were subverting the established planning process.
>
> I went to Horner and explained the situation. The Marines were bypassing the planning cells where we constructed the Master Attack Plan, which designated targets and force packages to attack them. This occurred about the first week in February. Instead of coming to us (we had a Marine Corps representative in the Iraqi strategic target planning cell) and giving us their inputs, the Marines would withhold information from us. They would go to the ATO cell late at night and give the "changes" to the ATO operators. They would present what they were trying to do as "changes" to the process and give them to the guys processing the ATO.
>
> So they would accept this information from the Marines as if it were a change, and input it into the system. In fact, it wasn't really a change. It was their initial input. They had to get it into the ATO because they needed the deconfliction, they needed the call signs, the air space management, and so on and so forth. They would bypass the planning cell and go hit whatever they wanted to hit. They could bypass the agreement that was made early on.
>
> Anyway, I went to Horner with this information. His comment to me was, "Dave, can you do what you want to do with Air Force assets alone?" And I said, "Yes sir." He said, "Well, do it. Go ahead and do it and don't worry about the Marines. Just let them do what they want to do." In retrospect, I believe it was a wise decision on the part of Horner. The reason he was doing it, and I believe he laid this out in his discussion, was, "We don't need to cause any internal doctrinal strife while this thing is going on. We just don't need those kind of battles to disrupt our overall direction." In that respect, I thought it was a wise decision. It is a good example to show how Horner was more than accommodating.[13]

This was not the only way the Marines manipulated the air targeting process. A Marine on the Riyadh planning staff acknowledged how they changed targeting another way. During the air planning process, he noted that no one really looked very hard at alternate targets. He then listed the targets the Marines wanted to strike, but not approved for strike by the CENTCOM planners, as alternate targets. Then it was only a matter of a quick phone call to the appropriate air wing asking that the secondary target be struck. The Navy wings, some very frustrated with ATO, JFACC, and BVR ROE, were often very willing to accommodate the Marine officer. In some instances, the pilots disregarded the primary target and struck only the alternate.[14]

The Marine actions were taken because of loyalty to the "Corps" and a general perception by some Marine planners that the Marines were not

getting their "fair share" of air support. One Marine officer claimed, when they did get air strikes in the Marine area of operations, it was usually by less effective Coalition member air forces.[15] So with "Semper Fi" in mind, at the time, there was no guilt for their actions.

These actions were condoned at command levels below Boomer. General Moore stated,

> The ATO process is very cumbersome. That document was upwards of 300 pages. What I did was make it work for us, and I think the Navy did the same thing. I wrote an ATO that would give me flexibility to do the job. I might write an enormous amount of sorties, and every seven minutes I'd have airplanes up doing various things. And I might have to cancel an awful lot of those. But this way I didn't have to play around with the process while I was waiting to hit a target. I kind of gamed the ATO process.
>
> The Navy's trouble was that they tried to do it honestly and write just what they were going to fly. They, more than anybody else, would have to build a system that gamed the ATO process, put in enough flexibility so the commander could do whatever he wanted to, and just read the special instructions. That's the way they did it at the end.[16]

General Moore did not believe in the ATO or the JFACC concept. In his opinion, the JFACC process did not respond well to the battlefield. His overriding mission, as indicated in the title of his *Proceedings* interview, "Marine Air: There When Needed," was for Marine air to be there for Marines. The focus was narrow enough that General Moore stated, "About 15 days prior to the ground campaign, we were into battlefield preparation. At that time, if a target didn't do something for the IMEF and the battlefield preparation, we weren't going. The Air Force understood that."[17]

With the Marine air commander so focused on his own specific mission, his staff would be inclined to follow his lead. In hindsight, one Marine officer freely admits his actions were not correct and essentially not the way business should be conducted.[18] But the actions were made with the best of intentions in support of his organization, which he believed in. It makes it that much more important for leaders to anticipate such followership and remind subordinates to keep the big picture in mind.

General Moore was also not an avid supporter of the strategic air effort. Although the Marines were always part of the strategic effort, they resisted it. In Bahrain, near the end of August, at a briefing for Admiral Mauz on the strategic air campaign, General Moore commented that the first bomb that fell on Iraq ought to be after the first Marine crossed the line with his bayonet fixed. Although the Marines participated in the strategic campaign, because of their narrower focus and doctrine, they were primarily concerned with battlefield preparation.[19]

Glosson stated,

> Moore had one flaw that, unfortunately, colored everything that he dealt with. He was as good a tactical thinker and executioner as I have met in any other service. But on the hierarchy of tactical operations and strategic thought, that is where his thinking stopped. So when you were dealing at the operational level and the

strategic level, you were literally not communicating. And yes, this caused problems.

The real problems we had were centered more on his tactical orientation—what he did all of his career. This personifies what happens when you don't have any jointness or significant amount of jointness or exposure to other service officers and the way they think. And then once they become a general officer, it is a little late to get a cross fertilization going.

The Marines were obsessed with the MEF label. They kept two-thirds of their air assets to support a ground action that was not about to happen and wasn't even in the realm of the possible. They only used one-third of their assets to fly sorties that should have been fragged. This is something that a CINC should have controlled. He should have just slam-dunked them. From time to time he would, but it was like pulling eyeteeth. In other words, I would have to go to Schwarzkopf and say, "The Marines won't do this, and the Marines won't do that." At the same time, Horner was trying to keep a very collegial and nice, friendly working relationship with Yeosock, Boomer, and Arthur. And so, I accepted the situation of sometimes having to go to Schwarzkopf to get things done, especially with the Marines or the Navy. And I don't apologize for that. I would do that again.

It must be noted that General Moore could not have conducted operations as he did without Boomers support. In this regard, Boomer's primary focus, as the IMEF commander, was preparing the battlefield. Boomer did not object to General Moore's handling of the air campaign.

The Marine actions impacted operations. The Marine actions and insistence on directly following their own doctrine resulted in the Air Force leaders, to some degree, not being able to direct and better support initial Marine battlefield preparation.[20] Glosson was frustrated to some degree working with the Marines and their narrower IMEF focus. He saw the theater-wide perspective and noted the impact on operations. Glosson stated,

Boomer is so easy going and so even keeled, that you have a tendency to not appreciate the steel in his back. He is a land warfare strategist, and he has his own view of how everything should be done as far as land combat is concerned. That happens to include an element of air in support. But the other side of the coin is you have to give credit. When they went across the wire, they were almost holding up on the hill overlooking Kuwait City before VII Corps turned right. So, there is a big difference in their mind-set.

I had a lot more empathy toward the situation he could possibly be in than I did some of the other ground commanders. Boomer was so "can do" and success oriented; he was willing to be flexible in almost anything except the one issue on air. He was just absolutely hard-nosed; he wasn't giving up all of his air for any reason, even before the land war started. So he paid a price for that. He paid a price in those divisions that were down in front of the Marines. They were not attrited as much as the other divisions because he insisted on flying the Marines, who didn't have the precision weapons capability,[21] against those divisions.

He came whimpering in to the CINC about a week before the ground war started. I had told the CINC that this was going to happen. I told the CINC, "Don't worry about Boomer. When we get within a few days of the ground war starting he is going to be begging you to let Navy and Air Force with PGM's come into those boxes to kill those divisions." And that is what precisely happened. So then we moved the

> F-18s on up around the north of Kuwait City, and we put PGM guys in over the divisions and attrited them down.[22]

Glosson was frustrated with the strict Marine adherence to their doctrine and their lack of empathy toward the other services. All the same, he admired the Marine fighting spirit and was determined to support them. What is unfortunate is that better joint education and training before the war, followed by more open-mindedness and communication during the war, would have resulted in better cooperation and trust. This in turn would have led to much less needless consternation during the conflict.

Some Marines noted Marine difficulty overcoming their narrow focus and the problems the Marines had integrating Marine air with air power from other services. The Operation Desert Shield/Desert Storm After-Action Report by the Marine liaison, CENTAF, stated,

> During Desert Shield/Storm it was apparent that the Marine Aircraft Wing was reluctant to become part of the overall air campaign in concert with the other theater air assets. Much of this was due to the inherent fear of the Air Force control fostered by Southeast Asia, and the need to demonstrate MAGTF [Marine Air/Ground Task Force] control over its own air assets. Another related reason is the inherent distrust of Air Force intentions to control the destiny of Marine air vice the coordination of the air campaign. To those that had day to day dealings with the Air Force it became readily obvious that the JFACC's primary concern was to coordinate the efforts of theater aviation, deconflict airspace, and increase the efficiency of the air campaign. The 1986 Omnibus Agreement was often used as a weapon by the Marine Air Wing to maintain its aloofness from the coordinating effort of the JFACC. Marines have maintained that the JFACC's role, as defined by the Air Force, was to "control" Marine air. The Marine definition has maintained that the JFACC's role is strictly to coordinate the effort. In fact, it was the Marine definition of the JFACC that came to pass. Even so, the Marine Aircraft Wing maintained its detachment from most of the coordinating effort initiated by the JFACC. Eventually, it was the Marine Aircraft Wing that created the animosity and distrust that will come back to haunt future joint operations. Joint operability is a fact of life that we as Marines need to learn to live with. By our nature and diversity we should be the best at it . . . . But in our conduct of joint warfare we do not show that we are independent and, therefore, not redundant; we demonstrate that in a joint environment the MAGTF cannot be counted upon to increase the synergism of the joint command, thereby making us an inefficient part of the whole and therefore, expendable.[23]

The Marines required the support of the air assets of the other services. Although they boast a significant air arm, they had shortfalls in numbers, equipment, and ordnance. One of the most critical shortfalls was precision weapons. Even though they possessed Maverick missiles, their version of this weapon could only be employed with the assistance of a ground laser designater. During the battlefield preparation, ground troops were normally not close enough to targets to designate.

Contrary to what some of the Marines might have believed, the USAF air leaders were very concerned about the effort placed on the Marine's front. But the Marines were not the main thrust of the battle—VII Corps was. Therefore, General Schwarzkopf was not going to place an equivalent share of

air power in the Marine battle. The Marine's primary mission was to fix the Iraqi forces and make them believe the main thrust was north through southern Kuwait. If the Marines penetrated, so much the better. If they did not, that was all right because VII Corps was the main thrust. Of course the Marines had no real intention of just being a fixing force for the US Army. They had every intention of taking the battle right to Saddam Hussein. And their aggressive attitude showed.[24] It showed enough that Gen Sir Peter de la Billiere, commander of the British Coalition Forces, whose units were initially dedicated to work with and support the US Marines, partly justified moving his forces out with VII Corps by his concern of Marine overaggressiveness. He commented,

> I was concerned by the idea of our forces going into battle with the US Marines. Not only had they been placed in the sector opposite the most heavily fortified Iraqi positions, they also had a reputation of being exceptionally gung-ho. The official prognosis put the amount of casualties they might suffer in an attack as high as seventeen percent.[25]

Sir Peter de la Billiere was also concerned that Marine budget cuts might drive the Marines to risk higher casualties to protect their existence in the long term (Model III). In essence, he did not believe the Marines, threatened by possible funding loss, would be capable of operating in a Model I or rational manner.[26]

Horner had a great deal of respect for Boomer and the Marine units. He also appreciated what the Marines were fragged to go up against and worked to support them. Horner noted the following:

> In the case of the Marine Corps you always had to be sensitive that they wanted their air employed against Iraqi divisions that they would later engage on the ground. We did that. However, their air was insufficient to the task. Quite frankly, the Marines faced more Iraqi divisions than any Army unit. So we had to put massive Air Force and Navy support against those divisions just prior to the ground war starting up. That story is never told, and the reason is people would say I was trying to embarrass the Marine Corps. I'm not. We had to get those divisions down. Quite frankly, the Marines were touted as a secondary attack and, as a result, they were not given as much support as, say, VII Corps. In reality, the Marines had a much tougher nut to crack and they did a superb job. Their ground forces showed up the other ground forces. Nobody will talk about that, but I thank God the Marines don't. It wouldn't do for strong interservice relations at this point in time.[27]

Eventually Horner found ways to get battlefield preparation air to the Marines. And during the ground campaign, the Marines were successful beyond expectations.

Analysis

In essence, Boomer worked well with the other component commanders and believed an additional echelon of command between him and the CINC, such as the US Army corps commanders had with ARCENT, would degrade operations. On the location of the MARCENT commander and his headquarters element, there was disagreement between Boomer, who felt he could

command effectively both MARCENT and IMEF, and the US Marine Corps Commandant, General Gray. Boomer enjoyed an effective relationship with his immediate boss, Schwarzkopf, and thought it best to continue without an echelon of command above him. Boomer also believed he enjoyed effective relationships with the other component commanders. Based on literally centuries of experience, operations between the US Navy and the Marines generally went well. Although there were corps boundary issues between the US Marines and the US Army, Marine/Army relations were good. Even on the most sensitive issue, the integration between Marine air and the JFACC, Boomer felt comfortable.

However, the addition of a separate MARCENT commander, stationed in Riyadh, may have had a positive impact on the joint air operations. If the component headquarters had been collocated, communication and direct interaction between the USAF and the USMC commanders and staff would have increased significantly. Because of the increased interaction, misunderstandings and mistrust could have been more easily overcome. With Marine commanders and command staffs working more directly with the other services, versus only liaison officers, key Marine leaders would have seen more of the big picture. With this bigger picture, integration with the other services may have improved. Many of the USMC liaison officers at Riyadh, especially reflecting upon the conflict after the war, did believe the USMC might have been too parochial. This is reflected in postwar interviews and after-action reports.[28]

General Gray was concerned about the Marine component commander and staff operations being physically separated from the other commanders in Riyadh. He believed the Marines could integrate better and be more effective by separating COMMARCENT and commander, IMEF, and that the Marines could be better represented by the MARCENT commander being physically located at Riyadh. While Boomer was satisfied with the command relations, General Gray was not. General Schwarzkopf, satisfied with his relationship with Boomer, did not allow the separation of IMEF and COMMARCENT to occur. Had General Gray pushed the issue a month or two earlier, it might have been more difficult for the CINC to shut off the initiative. After all, General Gray was arguing the Marines needed what the Army had: an echelon of command between the largest tactical unit (MEF/Corps) and the CINC.

Boomer's and Moore's top priority was execution of the ground war in the Marine area of operations. However, a separate COMMARCENT would not have necessarily been as concerned with the tactical focus of the ground war. A separate COMMARCENT might have looked at a broader picture and been more concerned with how the Marine ground forces and Marine air affected the entire theater. This is likely because a separate COMMARCENT and his staff at Riyadh would have interacted continually with the other component commanders and their staffs. Instead of the USMC operating with a lack of information and perspective inside Model II, COMMARCENT could have operated more on a Model I level. Boomer was correct in believing he could effectively orchestrate and command tactical operations from Jubail. But

what he was unable to do was adequately change his perspective from a tactical to a joint theater outlook. This was not from a lack of desire to make the best contribution possible to the theater effort, but more from lack of interaction and perspective with the other services and a somewhat narrower tactical focus. As IMEF commander, Boomer led the Marines through a ground operation that was nothing less than spectacular. But as COMMARCENT, his interest was weighted in supporting the Marine ground efforts—not in providing continuous and direct interaction and support to the CINC and the other component commanders as a separate COMMARCENT might. While operating rationally from the perspective of commander, IMEF, Boomer was operating somewhat Model II as COMMARCENT.

In the end, the Marines, with few exceptions, were operating as they wanted with little interference from the other services or the CINC. Boomer was allowed considerable leeway in his command decisions concerning IMEF operations and the conduct of their portion of the ground campaign. In a conflict with less abundant resources, a CINC might not allow such independence.

Although the amphibious assault operation was desirable from the viewpoint of Model II and III, with all information considered, it could not be rationally justified. As the ground war neared, operating Model I, Boomer agreed with the CINC that an assault would not be in the best interests of effective combat operations; it would be difficult to minimize casualties.

Moore operated the same way as Boomer in that he was primarily concerned with a specific mission: supporting the Marine ground forces with air power. General Moore focused his efforts at this mission and paid much less attention to integrating air power most effectively with the other theater assets. Had General Moore been more cooperative with the other components, particularly the USAF, more effective assets, in terms of numbers and capabilities, might have been more available to the USMC sector. USMC air, though very capable, still needed to be augmented by better airstrike platforms. The USMC air was especially lacking in precision capability during the battlefield preparation. Because of Marine adherence to doctrine and their own self-sufficiency (Model II) as noted earlier by Horner and Glosson, one impact was that the Iraqi units in front of the Marines were not judged as attrited as were Iraqi units in front of other Coalition units. Had the Marines not insisted on using their own air to such an extent, precision sorties would have been made available sooner.

In regards to the "gaming" of air strikes to other areas by Marines, it is classic Model III. The overwhelming loyalty was to the suborganization cause (US Marine Corps and IMEF in this instance) with a secondary concern for the "big picture." The suborganization took clear precedence over the larger organization in a number of instances. Some Marines saw themselves in competition for air assets with the other services, and being of a competitive nature, competed aggressively. Due largely to the abundant assets, this did not turn out to be a major problem in the air operations. But in different circumstances it could be. (Based solely on the Gulf War, one could expect the Marines to try to keep their own air in the absence of emergency theater

needs.) Horner was the quickest to pick up on this fact and in true Model I+ fashion made a decision to ignore it. Although Boomer and Horner got along very well and worked together inside Model I, their staffs, more narrowly focused, did not work as smoothly.

Moore and Horner openly illustrate some Model III "bargaining behavior." In his comments during his interview with *Proceedings*, General Moore stated,

> We weaned ourselves out of any deep strike support. When I say we weaned ourselves, we made some tradeoffs. Horner would come to me and say, "Hey Royal, if you can hit these rail yards or you can hit this power line, I will give you 75 A-10 sorties as a tradeoff. If you can give me one more strike group late in the afternoon or in the morning, I will give you these F-16s or these F-15Es." So there were tradeoffs back and forth as we worked through the air war.[29]

While such bargaining can be done for rational reasons, if done as the standard way of conducting business, it usually indicates a Model III environment. In the interest of interservice harmony, Horner sometimes degraded to Model III behavior and bargained in this manner to get the most effective aircraft systems on a given target.[30] The FA-18s were capable of striking deeper into the Kuwaiti Theater of Operations (KTO) than the A-10s were. On the other hand, the A-10s, with their PGM capability, were more effective in attacking mechanized and armored divisions directly in front of Marine positions. While this bargaining improved integration, it should not have been necessary. In a Model I scenario, this bargaining would have been unnecessary.

Glosson respected the Marines for their tactical expertise, but was very frustrated when it came to working with them on an operational level. For the Marines, after years of training to operate autonomously, it was difficult for them to break out of their Model II behavior. There seems to be an inbred lesson in the Marine Corps not to rely on any other service unless forced to do so.[31] This mistrust and resulting self-reliance has some justification in history when they, on more than one occasion, paid in casualties when they were not adequately supported in the Pacific during World War II. Within many Marine officers, there is a determination not to let history repeat itself.[32]

Until the US Marine Corps air component can break out of its Model II/III environment, it will not be as effective as it potentially could be. The synergism it creates within itself, between air and ground assets, can only be created between the USMC and the other services with the same level of integration. The Operation Dessert Shield/Desert Storm After-Action Report by the Marine liaison, CENTAF, US Marine Corps, stated this succinctly.

The Marine Corps after-action report is tough on the Marines, and that Marines would write such a critical report indicates the professionalism of the Corps. This report recommends that the Marines take advantage of every joint billet available with quality officers, improve joint training and education, and make equipment interservice compatible. The critical question for the USMC is, "Does the USMC see a problem and is the USMC attempting to improve integration?"

Until Marines can appreciate the USAF view of operational art and strategic attack, and USAF officers can appreciate the concept of the Marine Air Ground Task Force, there are going to continue to be frictions. It requires more than the senior service commanders working well together in a Model I environment to make the services perform well together. It requires empathy and understanding all along the line to make operations work best. Jointness is important and all the services must play ball. Being joint means applying all available assets in the most effective manner, regardless of services.

Some USAF officers thought Model II at times. When the USAF planners had stepped back and looked at the big picture, they realized, as Horner did, that the USMC had limited capability to offer the strategic aspects of the air campaign. The Marine aircraft are generally best suited for short range and close battle. The USMC enjoyed only a relatively small number of deep strike capable fighters and only very little precision weapon delivery capability. In essence, the USMC was best suited to support its own area.

It should be noted that Deptula realized, at the time, he was thinking in Model II terms. But this thought, in part due to Horner's guidance, did not translate into action. Individuals engaged in a narrower mission focus are prone to thinking in Model II terms. Deptula's focus was the planning of the strategic air campaign and he saw the Marine actions in conflict with his mission. Horner, on the other hand, was not as narrowly focused, and at the time could better place the Marine action in relation to the big picture. With the big picture in mind, Horner was able to make a Model I decision.

Deptula was rightly concerned that precedents were being set that might cause problems for future air integration. And there should be concern for precedent. However, one must take care to ensure that concern for precedent does not lead to Model II/III behavior and unreasonably affect current operations.

The impact of the Model II actions could have had a greater impact in a more closely contested conflict. In the Gulf War, the abundant air resources allowed some inefficiency in joint air operations without a corresponding degradation in combat capability. In future conflicts, where the United States might not enjoy overwhelming capability, such degradation in joint integration could be disastrous.

The following is a summary of command interaction analysis concerning USMC air operations.

- The CINC, CENTAF commander, and Boomer as IMEF commander operated Model I.
- Boomer, as COMMARCENT, in regards to air power, exhibited some Model II focus.
- The CENTAF commander operated Model I+.
- In the USMC, below the component commander level, Model II and Model III behavior occurred.

Joint Operations

In the end, integration was achieved between Marine air and the JFACC. But it was not always easy and without pain. If the USMC is to integrate effectively with the other services in the future, it will need to become more flexible in its doctrine and cultural mind-set. More trust needs to be established between the services and forces should be integrated with less resistance. With a shrinking United States military budget, it is not reasonable for any single service to have its own aviation component which serves no service but itself. With more joint integration and practice, this should become easier.

On the other hand, the other services must be more understanding of the Marine's special capabilities, needs, and operations. The USMC offers an example of jointness all wrapped into a single service. While all of its lessons and experiences might not be applicable to all services, there are some experiences which are. The other services need to realize the "lightness" of Marine units and their special dependence on air power. Horner had it right when he noted the USMC fighters were especially suited to USMC operations and that it made common sense to use them in that capacity. Although USMC air has some capability to operate in other roles and missions, it makes sense to use them in the manner they are best suited.

The USMC has realized the need to integrate more closely with the other services. In an effort to improve this integration, permanent component commander positions have been established for both Pacific and Atlantic areas of operations. These positions are separate from and in addition to the MEF commander positions. The MEF commander will be primarily responsible for tactical operations, and the USMC component commander will oversee integration and USMC interests at the command headquarters.[33]

Notes

1. Operationally, IMEF consisted of two divisions, 1st Marine Division and 2d Marine Division. Insofar as operational maneuver units are concerned, 1st Marine Division consisted of the 1st Marine Headquarters Battalion, 1st Marines, 3d Marines, 4th Marines, 7th Marines and the 11th Marines. The 2d Marines consisted of 2d Marine Headquarters Battalion, 6th Marines, 8th Marines, 10th Marines and the 1st Brigade (Tiger Brigade) of the US Army 2d Armored Division; Dennis P. Mroczkowski, *Marines in the Persian Gulf, 1990–1991. With the 2d Marine Division in Desert Shield and Desert Storm* (Washington, D.C.: Government Printing Office (GPO), 1993); and Charles H. Cureton, *Marines in the Persian Gulf, 1990–1991. With the 1st Marine Division in Desert Shield and Desert Storm* (Washington, D.C.: GPO, 1993).

2. Walter E. Boomer, interview with author, Naval Annex, Washington, D.C., 23 December 1993, 2.

3. Boomer interview, 3.

4. Royal N. Moore, "Marine Air: There When Needed," US Naval Institute *Proceedings* 117/11/1065 (November 1991): 62.

5. Air Force Manual (AFM) 1-1, *Basic Aerospace Doctrine of the United States Air Force*, March 1992, 8.

6. Charles A. Horner, telephone interview with author, 27 December 1993.
7. Boomer interview, 3.
8. Horner telephone interview, 2.
9. Boomer interview, 3.
10. Horner telephone interview, 2.
11. Horner did not invent the ATO, but used it when he realized it would be an effective tool to solve a problem with the Saudis.
12. Maj Pat Beekman, USMC, telephone interview with author, 10 June 1994. Major Beekman was a USMC representative to the JFACC staff.
13. David Deptula, interview with author, Pentagon, Washington, D.C., 21 December 1993, 2–3.
14. Major Beekman, telephone interview with author, 10 February 1994, 6.
15. Ibid., 8.
16. Moore, 63–64.
17. Ibid., 64.
18. Beekman telephone interview, 10 February 1994, 8.
19. Deptula interview.
20. Buster C. Glosson, interview with author, Pentagon, Washington, D.C., 21 December 1993.
21. Laser-guided AGM-65 Mavericks were the USMCs only significant PGM capability at the time of the Gulf War. But since these AGM-65s, unlike other versions of the missile, had to be guided by ground force designation, they were of very limited utility during the air campaign; ground troops were generally not within eyesight of enemy positions during this phase of the war.
22. Glosson interview, 7.
23. J. W. Robben, Marine liaison, CENTAF, USMC, after-action report, subject: Operation Desert Shield/Desert Storm, 18 March 1991, enclosure 2, 16.
24. Beekman telephone interview, 10 February 1994, 12.
25. Sir Peter de la Billiere, *Storm Command* (London: HarperCollins Publishers, 1992), 93–94.
26. Ibid.
27. Horner telephone interview, 6.
28. Robben, US Marine Corps liaison to CENTAF, after-action report; and Beekman telephone interview, 10 February 1994, 12.
29. Moore, 64.
30. Horner could have been more directive and ordered the Marines to integrate more air with the Coalition's air forces. As the JFACC and with the support of the CINC, he had the ability to do this. However, at that time, Horner believed by "bargaining" he could accomplish the mission and maintain the interservice harmony he knew to be important.
31. Col Eric Hastings, USMC, interview with author, Air War College, Maxwell AFB, Ala., 2 December 1993. Colonel Hastings was General Boomer's Chief of Staff during the Gulf War.
32. Hastings interview.
33. Beekman telephone interview, 10 June 1994.

Chapter 5

The United States Army

Just before the ground war started, I was back at King Khalid Military City for some purpose and made it over to the airfield where the A-10s were refueling. I went over to one of the refuel/rearm points. The pilot stayed in the aircraft while they were refueling, but you could talk to the pilot through an intercom cord with a mask. So I asked, "How are you doing? What are you doing today? What's your mission?" "Well, we're out Scud hunting today," and he said, "Who are you?" Well, you know, he's up there so he can't see me well. So I identified myself and he said, "Well, I know you're not into it yet; but when the ground attack starts, we'll be there for you." End of transmission. And I remembered that all through the ground war. And that typified the fighter mentality, I think, and meant a lot to me. It transcended some disagreements over targeting and other issues. That captured, for me, the feeling between the people flying the airplane and people firing tank cannon and people flying Apache helicopters.

—Lt Gen Fred Frank
Commander, VII Corps

Battlefield Preparation

Gen Fred Franks commanded the US VII Corps. By mission and composition of forces, he was the most important commander actually on the battlefield; during the ground campaign Schwarzkopf and Yeosock remained in Riyadh, over 300 miles south. Franks was also the most influential tactical commander in the ground operation. He made the most important tactical decisions that affected the battlespace and tactics of not only his corps, but also that of General Luck[1] and XVIII Airborne Corps. These two units comprised the bulk of the Coalition forces that would attack the most elite Iraqi ground forces, the Republican Guard.

The decision to bring VII Corps from Europe was not made until October 1990. This gave the VII Corps less time to integrate its forces and prepare for battle than the other established units. Moreover, VII Corps training and indoctrination was for a central European, North Atlantic Treaty Organization (NATO) conflict, which exacerbated the reduced preparation time period. Trained for a specific type of battle and trained in specific ways, moving to the Middle East environment and the Central Command (CENTCOM) arena meant a different way of conducting business and waging war for the VII Corps and its commanders.

In addition to these training differences, there were command and procedural differences. The XVIII Corps was based in the United States and prepared mentally for a variety of different theaters and contingencies. The

VII Corps was based in Europe, with a very specific NATO mission mind-set and outlook. The result was the XVIII Corps, with the broader mission outlook, demonstrated more flexibility in regard to accommodating CENTCOM operations than VII Corps with its narrower mission focus. It should be noted the broader XVIII Corps focus and training included extra emphasis on the CENTCOM area of operations in the 10 years leading to the Gulf War. This further emphasized the different orientations between the two corps.

One of the first frustrations encountered by VII Corps leaders was the JFACC's refusal to recognize and implement procedures for Battlefield Air Interdiction (BAI), a concept born and developed in NATO. The notion of BAI was first developed by the RAF and the USAF in an effort to integrate non-US NATO air forces—those that refused to conduct Close Air Support (CAS)—into an attacking force inside and outside the Fire Support Coordination Line (FSCL). In BAI, the strike can be inside or outside the FSCL, and attack aircraft do not need to be under the direct control of a forward air controller when delivering ordnance.[2] The operation of BAI in a high-threat central European environment was appropriate.[3]

The US Army in Europe liked the concept of BAI. It allowed the Corps commanders the ability to nominate targets formally and provided them with a measure of control over air assets. But while NATO planned and trained with the use of BAI in mind, not all other commands did. The USAF even backtracked, discouraging the use of the procedure. For example, the 1984 version of Air Force Manual (AFM) 1-1 defines BAI, but only as a subset of interdiction. In the current version of AFM 1-1, Volume 1, and in the *Department of Defense Dictionary of Military and Associated Terms* (Joint Publication 1-02), December 1989, the term *BAI* is not mentioned.[4] The term *BAI* is mentioned in AFM 1-1, Volume 2, Essay Q, "Air Interdiction and Close Air Support." But the reference simply states, however, that battlefield air interdiction is interdiction with near-term influence on the battlefield and requires close coordination between air and surface forces.[5]

Horner saw BAI as unnecessary; a mission which would complicate and possibly degrade the application of air power on the battlefield. So Horner eliminated BAI as an air mission type for CENTCOM. In making this decision, Horner acted within USAF and joint doctrine, but not strictly in accordance with the *31 Initiatives* of 1984 where the Air Force and the Army agreed to develop and to test procedures synchronizing BAI with ground maneuver.[6] The disconnect was that the US Army as a service, had incorporated BAI from the *31 Initiatives* into its doctrine—the USAF had not.

While the BAI issue appeared to be relatively unimportant in the Gulf War, it is actually very important. It appeared to the corps commanders and staffs, that the JFACC (and the USAF) were not allowing the corps adequate influence in preparing and integrating air power onto the battlefield. Generals Luck and Franks saw BAI as joint doctrine[7] and essential to shaping the battlefield for the Operation Desert Storm ground operation. With the *31 initiatives*[8] dialogue of 1984 in mind, many commanders in the

US Army expected to have BAI available as an input to shape the battlefield.[9] To understand this viewpoint fully, one must appreciate the corps' and corps commanders' perspectives. In NATO, BAI and CAS were part of Offensive Air Support which was prioritized by the Army Group commander; therefore the corps commander in NATO had a direct input into target nominations.[10]

In summary, Horner saw the addition of BAI as unnecessary and believed dividing interdiction into two separate categories complicated command and control without significant benefits. Although the majority of the US Army felt there was agreement between the two services on the use of the procedure, USAF officers did not.

It is interesting to note this *was not the only disconnect between the two services* on the employment and integration of air power with ground forces on the battlefield. Gen Calvin Waller, deputy CINC, complained the services did not fight in accordance with joint doctrine and AirLand Battle. He states,

> Let me tell you about one area where I think joint doctrine is broken and we need to fix it. That is in the Air-Land Battle portion. Our joint doctrine allegedly forged between the Army TRADOC (Training and Doctrine) Command and Langley (Tactical Air Command) says that, "Every theater is supposed to operate essentially the same when it comes to how Air-Land Battle is fought." I will tell you it looks good on paper, but I haven't found a theater commander yet, especially a theater air commander, that believes or operates by it.[11]

Both BAI and AirLand Battle disconnects are easy to understand. On BAI, the USAF never formalized it Air Force–wide. And, as far as the USAF is concerned, AirLand Battle is not joint doctrine. US Army Field Manual (FM) 100-5 *AirLand Battle* is an Army document and one that has not been formally accepted as standard procedure throughout the Air Force. In the *31 Initiatives*, the USAF "recognized the concept of Air-Land Battle"[12] and agreed to work with the US Army within its framework, but did not adopt it as USAF doctrine. Without AirLand Battle being institutionalized within the USAF, there was not a consistent USAF commitment to the concept. Integration procedures between the USAF and the US Army varied, in fact, based on the needs and procedures of the various theaters as well as the personalities of their commanders.

The US corps is the largest tactical unit on the battlefield. It is equivalent in size to the numbered field armies of World War II and Korea, but capable of several times the effective speed and firepower of those older units. In US Army doctrine, the corps commander is responsible for countering all threats, regardless of battlefield boundaries, which may affect his unit.

In Operation Desert Storm, neither the US Air Force nor the US Army seemed to fully appreciate the corps' primacy on the battlefield. While the Army recognized the importance of both corps primacy and the corps commander, it is just beginning to understand the "new" corps implication in regard to air power application.

While the corps commanders were charged with responsibility for battlefield objectives, they personally did not feel they had sufficient influence on the air order of battle. Franks stated, "I had no argument with the amount

of air in there. That was somebody else's decision. But what it did when it was in there, seems to me, had to be part of the total maneuver scheme of a five-division, 146,000-soldier corps. We had to complement one another, and that's what frustrated me. Eventually, because of the amount of air, we got it all done."[13] Franks's primary focus was tactical, and rightly so. His point illustrates his tactical perspective. But due to the importance of Franks's tactical mission, the destruction of the Republican Guard, Franks had to think operationally as well. This complemented the theater-wide or operational perspective of the JFACC.

Tactical air power is generally a limited resource.[14] In the campaigns of North Africa and New Guinea in World War II, unity of command allowed the Allies to regain the initiative. In Operation Desert Storm, Horner forged a unified air campaign of unparalleled effectiveness. In contrast, where unity of command was not achieved, such as in Korea and Vietnam, effective planning and execution became difficult, if not impossible. Although there are examples of decentralized air command, such as northwest Europe in World War II, division of the theater air effort and strategic confusion have frequently occurred together.[15] History also indicates that air power, generally, has been best employed when employment was controlled by an airman. Thus, while history provides some of a mixture of lessons in regards to the control of air power on the battlefield, the majority of the evidence indicates it is a limited resource and should be centrally controlled.

For these reasons, USAF leaders have fought aggressively for centralized control and decentralized execution of air resources—and rightfully so as most historical evidence has shown. Parceling out packets of air power to individual units, especially when it is a finite resource, has not proven to be the most productive way of employing combat aircraft. This was proven early in World War II during Operation Torch in North Africa.[16]

As the air campaign proceeded in Operation Desert Storm, the corps commanders wanted a greater voice in deciding which targets would be struck. Franks, VII Corps commander, reportedly called Waller, the deputy CINC, and complained, "Cal, I'm not getting my share. I need your help."[17] Although he had been very comfortable with Horner's performance during the early air campaign—and played a very minor role in it—Waller became concerned with the "battlefield preparation." He stated,

> But when we started shaping the battlefield—when it became crystal clear that we were going to have to get into the ground campaign—it became awful important for someone to really see what was going to happen on the battlefield. I became very uneasy with the way I saw the air being apportioned. It was not following doctrine, doctrine as I knew it. I said to the CINC, "It is imperative that we get our arms wrapped around this so that we can provide the proper apportionment of air to the ground commanders so that they have a feel for what is happening in their sandbox out in front of them."[18]

Waller put a message together for the CINC to sign. The message assigned Waller to oversee the battlefield preparation sorties. In his opinion, until he was granted that authority by the CINC, ". . . the air component commander

still had the same kind of license to say, 'I want to divert X amount of air from, let's say, shaping the battlefield to some strategic target'." Waller indicates the lesson he learned was that the individual who is in charge of the strategic air campaign should not be the same individual who is in charge of the tactical shaping or apportionment of air on the battlefield.[19]

Franks believed the targeting review conducted by Waller helped. He observed, "When Waller got into it, I noticed an improvement in our ability to communicate priorities to support the land concept of maneuver." However, Horner did not agree targeting review had an important function. He stated,

> He [Waller] did not set up a targeting board. Let me tell what happened. Waller didn't have a real job. Schwarzkopf, of course, was not going to let him do anything. The Army corps commanders were complaining and moaning. Some in ARCENT were complaining that air was not striking the targets they were nominating. Well, that was true for a couple of reasons. One, some of the targets were not valid. Two, some of the targets were valid but Schwarzkopf would change tasking. Finally, some of the targets were being struck as requested. It was a mixed bag.[20]

In reality, the target selection was being accomplished by Lt Col Bill Welch from the Battlefield Control Element (BCE) and Col Sam Baptiste, a USAF air planner. Since Horner felt he was not making the battlefield target list, just taking inputs—and Schwarzkopf was changing the list anyway—Horner suggested Waller coordinate the list. But Horner emphasized, "This was not a joint targeting board for the theater. These were targets in Kuwait—this was about which Iraqi divisions you put air against."[21]

Corder confirms Horner's view of the targeting review function. "Horner told Schwarzkopf, 'Look, I have got to have one guy to talk to from the land side, land force. And it can't be you. I can't argue with you. You are my boss, and there is nobody to arbitrate. If the land force guy and I get into trouble, then we will both come to you and you can divide the baby—play King Solomon. Who's it going to be'?" Well, it can't be Yeosock because he doesn't speak for the Marines or the Arabs. It can't be an Arab; it can't be a Marine. Well, who's it going to be'?" Corder stated that Schwarzkopf said, "'Its going to be my vice, Waller,' to which Horner retorted, 'Fine'."[22]

It must be noted that Horner wanted a senior officer and a board to coordinate only the nomination of battlefield preparation targets—nothing more. He did not want a board or officer to exceed this authority in any other aspect. The board overseen by Waller did not exceed the authority Horner envisioned. The board neither allocated nor apportioned aircraft. The board did not nominate targets beyond the battlefield front of the corps or IMEF. In essence, the board served as Horner wanted it to: as a single voice to funnel corps target nominations to the JFACC staff.[23] To avoid a dangerous precedent, Horner was very clear about the boards actual function.

The board Waller chaired did not oversee deep interdiction or strategic targeting.[24] Basically, the Waller review was a corps commander target coordination and quality assurance function. However, this review had the merit of providing a line of communication for the corps commanders to express their requirements for air support and did assuage some corps level

concerns. But demonstrating the boards minor role in the USAF leaders' minds, Glosson, indicating he did not have the time to attend this review board, sent others instead.[25]

Waller admitted the goals of the overall campaign were the same as the goals of the air campaign.[26] However, there continued to be differences between planners on how the goals would be achieved. Waller named Glosson as an individual he had to keep a tight handle on. "Buster still wanted to try to get more of the air going against those strategic targets and to do certain things he felt were important. He would take one word the CINC might say at the nightly briefing and use that as license to divert air from some other place to there." Finally, Waller, as the deputy CINC, directed Glosson to get his permission before diverting any sorties. It was the deputy CINC's opinion that the air planners were trying very hard to win the war without having to resort to a ground attack. In his opinion, the air planners would then be able to say that air had won the war. Waller perceived the air planners were working inside Model III.[27]

This issue is complicated by the fact that Glosson and Deptula sometimes had difficulty getting the CINC to approve sorties to areas directly in front of the corps. They later admitted that, unknown to the CINC, they actually diverted a small number of sorties to the corps commanders' areas of interest. Glosson said, "Many times Dave and I would divert air. We would show it on the frag as one thing, but knew a large percentage of that would wind up being diverted to targets Luck wanted attacked. We also sent sorties out to the west (southern Iraq west of Kuwait), but the pilots brought weapons back numerous times because there just wasn't much out there."[28] The sorties which were diverted to these areas were aircraft whose attacks were not considered in regards to assessing battle damage.

Glosson found Franks very amenable during the war. Prior to the beginning of the war, Franks asked Glosson to brief his division commanders and flag officers about the air campaign. Although specifically not his intention to "talk down" to the division commanders, several felt Glosson did just that. Reflecting on the briefing, Glosson said,

> I thought it was a very collegial type of environment. Then, I was utterly amazed after the war. I guess I didn't show enough humility or something during the briefing. Several of the division commanders stated after the war, that their impression after they left the briefing that we (the USAF) were going to do everything and they (the US Army) weren't going to have to do anything. They totally missed the point. I was seriously trying to explain to them that we would pay every price to support them. There was no intention of telling them that they could all go home. I had no intention of being demeaning to them. I take a lot of the blame there because I was the one doing the briefing. If you're giving a briefing and an audience doesn't receive it the way you want to, it is your fault, not theirs.[29]

Deptula felt Glosson was too hard on himself. He felt institutionally the US Army and its officers would have reacted the same regardless of how humble Glosson appeared.[30] Regarding Horner, Deptula felt, "Horner's ability to work

with Schwarzkopf, along with the other component commanders was key in pulling this operation all together."[31]

Regardless of the other US Army officers' opinions on air strike targeting, Schwarzkopf was pleased with it. Horner and Glosson enjoyed his fullest confidence. With respect to the application of air power, the two USAF general officers developed a closer relationship with the CINC than even Waller, his deputy. For example, even after Waller put together his targeting board, Glosson would provide information or brief the CINC prior to Waller's briefing on the next day's targeting. Glosson would prepare a list of targets which he believed fell in line with the CINC's guidance and directives. Prepared with this information, Schwarzkopf, overseeing the targeting meeting, would sometimes criticize Waller when the targeting Waller nominated fell outside CINC guidance.[32] Schwarzkopf was primarily concerned with attriting Iraqi units to less than 50 percent strength prior to the ground war. When BDA assessment indicated units were below 50 percent, the CINC would generally not allow these units to be targeted again.[33] However, the corps and Waller sometimes nominated targets within Iraqi units assessed below 50 percent.

The personality of the commanders played an important role. Horner and the CINC got along well. Horner was able to interact with the CINC in a manner other important commanders were not. Corder highlights an example of this.

> Horner had this technique which just drove the rest of the guys at CENTCOM crazy. Everybody else would get up there and dutifully put up their viewgraphs, and Schwarzkopf would beat them up. And everybody else could ask obnoxious questions. Horner sat on the right of Schwarzkopf. And then would come Horner's turn. He would just take his slides and lean over and start going through the slides talking to Schwarzkopf in a low voice. And it just drove the rest of the staff crazy because they couldn't hear what he was saying, "This is what we plan to do with Joint Stars tomorrow and the next three or four days." The way Horner dealt with him was kind of a rolling conversation, covering about the next three days of activity. "This is what we did the last couple days. This is what we are going to do tomorrow. This is the kind of thing we are thinking about doing the day after tomorrow. And the day after and the day after."[34]

As Horner noted, a large number of the targets selected by the corps were not valid. In some cases they had already been struck. In other cases the targets were mobile and had moved. General Yeosock supported this view. At the Army Central Command (ARCENT) level, General Yeosock noted that he personally disapproved a number of corps target strike requests because they were not valid.[35]

But in an effort to support the corps commanders and still remain within the CINC's guidance, Glosson used aircraft which did not have an impact on BDA assessment, such as F-16s, B-52s or Coalition aircraft, to still strike some corps nominated targets not approved by the CINC.[36] Although many of these aircraft struck corps nominated targets, the corps remained largely unaware of their employment because ARCENT, for BDA purposes, did not track them.[37]

Much of the US Army/USAF frustration reached a crescendo with an incident a week prior to the ground campaign. On 18 February, ARCENT released a Situation Report (SITREP) which questioned the effectiveness of air effort in preparing the battlefield. The message was drafted and released by Gen Steve Arnold, ARCENT G-3 (operations officer).[38] However, releasing authority probably should have been Waller, the recently appointed ARCENT commander in Yeosock's absence for medical reasons.[39] Deptula read the message which stated that "air is failing to prepare the battlefield in a manner in which it needs to be prepared before a ground invasion." The message also stated,

> Air support-related issues continue to plague final preparations for offensive operations and raise doubts concerning our ability to effectively shape the battlefield prior to initiation of the ground campaign. Too few sorties are made available to VII and XVIII Corps and, while air support missions are being flown against first-echelon enemy divisions, Army-nominated targets are not being serviced. Efforts must be taken now to align the objectives of the air and ground campaigns, and ensure the success of our future operations.[40]

Deptula also noted the message was sent outside theater to the Army doctrine section at the Pentagon. Concerned over the content and the fact that such a derogatory message was being sent out of theater, Deptula showed it to Glosson who took the message to Horner. Horner then took the message to Waller and said, "I want an apology. What's this crap?"[41] Waller quickly stated he did not see the report before it was transmitted and that the report did not reflect his views; he was happy with what the air planners were doing so far.[42]

In reality, the message directly criticized Schwarzkopf, since it implied, as CINC, he had not aligned the objectives of the air and ground campaigns. Had the message not been transmitted to outside agencies, it would not have angered Horner to the extent it did. General Arnold never did apologize to Horner.[43] The entire episode reflected not only the discord of some Army leaders under the ARCENT commander and the CINC, but also their inadequate understanding of CINC guidance and the CINC's relationship with his air leaders. It is interesting to note that Yeosock was not in-theater when this occurred.

Although Schwarzkopf on a number of occasions indicated his priority to destroy the Republican Guard, several air planners believe, because of corps commander insistence on moving air power south, air power was diverted from Republican Guard targets too soon. With air power strikes moved south, third echelon Iraqi units comprised of the Tawakalna Mechanized Division, Medina Armored Division, Hammurabi Armored Division and the 51st Mechanized Division, were provided respite from attack. It was these units, the best trained and disciplined in the Iraqi army that the Coalition forces would need to engage to secure Kuwait. But as the ground campaign drew near, air continued to strike the dispirited first echelon infantry and the physically devastated second echelon, which began withdrawal or, at a minimum, significant repositioning. There were intelligence indications of

both the moral collapse and physical defeat of the first two echelons, but these indications were either not noticed or somewhat ignored.[44]

Near the first of February, Horner, in accordance with guidance from Schwarzkopf, concentrated a significant amount of air power on Iraqi Republican Guard units. About the same time, General Boomer, Generals Luck and Franks began pressing for more concentrated efforts nearer the front lines.[45] Corder noted:

> It was about three weeks before the ground war started. It was when Schwarzkopf said, "OK. It is now time for us to start working our way south." We had been bombing everything in the Kuwaiti Theater of Operations. The weight of effort was left for the Republican Guard, up on the northern border of Kuwait. We had been bombing the other places, but not with the high intensity that we could. And so, when we started moving south, the Army brought targets to us. We took them, but we only attacked about one-third of them. In your wildest stretch, you could not claim they were doing what the CINC wanted us to do. The corps doesn't care what the CINC wants to do. What they care about is what is happening out in front of them . . . used to be 20–30 kilometers, it's now 150 kilometers. And rightfully so. It's their . . . . They don't want to get shot at. So it is hard for them to get the big picture. Hey, we the USAF are 200–300 kilometers north beating the hell out of the Republican Guard—like we are supposed to. Excuse us. We aren't going to bomb this small outpost out in front of the corps because we think these T-72 tanks are more important than your little outpost. To the corps commander, he thinks that outpost is very important.[46]

The end result was airstrikes were shifted south prematurely. Deptula noted that after all Schwarzkopf's emphasis on the Republican Guard, the diversion of air power resulted in less effort attacking Iraq's best units. Based on postwar Central Intelligence Agency imagery and analysis, Coalition air forces were responsible for destroying or immobilizing 55.9 percent of the tanks, 38.4 percent of the armored personnel carriers, 69.3 percent of the self-propelled artillery and 42 percent of the towed artillery in the 2d echelon Iraqi force. This contrasts with air power only credited with destroying or immobilizing 11.8 percent of the tanks, 20.7 percent of the armored personnel carriers, 40.5 percent of the self-propelled artillery and 26 percent of the towed artillery of the 3d echelon/Republican Guard forces.[47]

During the air campaign, the vast majority of the sorties were for battlefield preparation (fig. 1). Battlefield preparation represented approximately 80 percent of the total strike sorties flown. Of that 80 percent, the Republican Guard attacks were only a minor percentage of the battlefield preparation missions. The bulk of the battlefield preparation sorties was flown against first and second echelon forces. This is in contrast to the general impression that the major effort of the air campaign prior to the ground attack was in strategic attack. In the end, the Coalition air forces prepared the battlefield well for the ground attack.

By the time the ground war began, air power had been tremendously effective and the Iraqi army was morally defeated. Saddam was agreeing to withdrawal.[48] As early as the night of 20 February, based on the Coalition air power effectiveness and the coercive effect of the capable Coalition ground

Day	1	5	10	15	20	25	30	35	40
Battlefield Prep Sorties	1,350	1,200	1,000	1,100	1,250	1,400	1,400	1,450	1,650
Strategic Sorties	1,100	550	300	175	200	275	250	175	100

Source: Richard B. H. Lewis, "JFACC Problems Associated with Battlefield Preparation in Desert Storm," *Airpower Journal*, Spring 1994, 8.

Figure 1. Sortie Type Comparison

forces, the Iraqi leaders realized that the defense of Kuwait was untenable. Iraqi regular army units constituting the second echelon in Kuwait were directed to reposition themselves.[49] By 24 February, the US Marines with the US Army "Tiger Brigade" met only morally defeated infantry of the first echelon forces, who largely surrendered in mass, and the remnants of the second echelon. Concealed by the dense smoke of the oil fires that were ignited beginning 21 February, parts of what was left of the second echelon of the Iraqi army—6th Armored Division, 1st Mechanized Infantry Division, 3d Armored Division, 5th Mechanized Infantry Division, the 10th Armored Division and the 12th Armored Division—were in a movement toward Basrah.[50]

Initially, the Republican Guard units were not pulled further back. Iraqi leaders failed to anticipate the "left hook" and apparently did not realize the Coalition would invade into southern Iraq. Once the Iraqi leadership apparently did learn of VII and XVIII Corps' advance from the west, the Republican Guard Tawakalna Mechanized Infantry Division was assigned a rear guard action to allow the Republican Guard Medina and Hammurabi Armored divisions to make good their withdrawal toward Basrah.

Reflecting on Operation Desert Storm, Franks commented,

> The level of effort, the teamwork, the courage, and the skill of those flying the aircraft, the tactical air control parties and my ASOC were superb. My biggest frustration was in getting the targets or groups of targets struck that I thought were most important to the success of the operation in my sector of responsibility. Now, a lot of that gets covered over because we had a lot of air. This particular point gets lost because of the rapid success of the ground operation. So you say, it all worked out, so what's the problem? Well, take a different scenario, different enemy, different air availability. Take an early entry scenario where your land force may be outnumbered. Then it becomes very important to have a tight dialogue between the land force commander, given responsibility for a mission on the land, and the support forces, either coming from the sea or from the air. That's why I highlight that point.[51]

In regards to the joint targeting board, Franks believed it was a procedural solution to a deep simultaneous attack. He favored the mission packaging concept where air and ground forces combine to create a synergism of firepower and maneuver.[52] This is a similar theme and doctrine which has been used to justify much of the US Marine Corps air power force structure. However, the USMC uses centralized command of all assets to realize their ends. It is not proven that centralized command is the best answer for combat

effectiveness for all the services. Indeed, it can be very costly in terms of assets due to inefficiency in dedicating expensive weapon systems to one type of action.

After the war, in regards to battlefield preparation, Luck commented on air support to the XVIII Corps during the conflict, "Oh, we put in our requests and were frustrated. Everybody gets frustrated when they aren't the number one priority; even the unit doing the main effort feels it isn't getting enough. But, in retrospect, I believe my allocation was just about right, and my resources were sufficient." Luck also noted that although the USAF did not follow joint doctrine pertaining to Battlefield Air Interdiction and Close Air Support, the way the USAF employed its air worked, and worked well.[53]

Analysis

The interaction between Schwarzkopf and the air commanders was generally Model I during the air campaign.[54] The first thoughts of Horner and Glosson were to support their CINC. They did this. They followed the CINC's guidance, directing the air campaign and battlefield preparation accordingly.

The three were able to work closely together for several reasons. First, there was significant trust between the individuals. This trust was gained through competence and loyalty. A second reason the CINC and the airmen developed close relationships was the theater's dependence on air power, especially in the early days of Operation Desert Shield. Glosson stated, "I think it was a set of circumstances that General Schwarzkopf found himself. In such an uncomfortable position, he realized there were no alternatives. There was nothing he could do except depend on air power."[55] This point was supported by Schwarzkopf's remarks the first time he spoke with Glosson. "I have no choice Buster. We may not have any choice—other than to do the best we can with an air campaign. I don't have the forces to do anything else."[56]

The dependence on air power is understandable. First, there was the threat of an Iraqi invasion. It was not until October that the CINC believed in full confidence he could effectively repel an assault on Saudi Arabia. It was not until the VII Corps from Europe showed up in-theater that the CINC believed he had the offensive capability to physically drive Iraq out of Kuwait. The VII Corps was not fully in place until right before the war in January. Second, Horner had "proven" his abilities and established some precedent as the CINCCENTCOM Forward early in the crisis while Schwarzkopf was in the United States developing the campaign.

While the individuals who would direct the tactical employment of the air forces worked closely with Schwarzkopf, the tactical commanders of the Army (the corps commanders) did not. The corps commanders generally worked through ARCENT and Yeosock. In addition, they had to work through the deputy CINC, Waller, when it came to nominating targets for the air forces to strike. This stifled communication up the chain, but communication was also stifled down the chain as well. The corps commanders did not understand throughout the war the direct impact the CINC had on the air force targeting.

They did not understand that changes and restrictions had been directed by the CINC.

Without the direct interaction with the CINC or the air leaders, decisions and actions between the corps commanders and the air commanders, in hindsight, could not always be explained by Model I. In actions explained more by Model II or III, corps commanders worked to gain increased control of air power to suit their specific corps needs. At one point, for example, Franks asked for a dedicated 300 sorties per day. When the other American corps commanders then asked for the same, Horner was ready to fall on his sword. In this instance, Schwarzkopf said, "It's all my air and I'll do with it what I want."[57] In the end, corps commanders' pressure influenced decisions to concentrate air further south. Operationally, this resulted in less air effort on the Republican Guard and more strikes on the already decimated 1st and 2d echelon Iraqi forces.

Even after the conflict, many US Army officers were of the impression a majority of the air power went to service strategic targets. This is not supported by statistical evidence. On the contrary, the vast majority of air power supported the battlefield. Glosson's and Horner's actions could even be interpreted as Model I+ in regards to air support for the corps commanders. Both somewhat covertly diverted airstrikes from the CINC's intended priorities to support the corps commanders.

There was, however, suspicion among some US Army officers that the USAF was trying to win it by themselves to make the USAF the first among equals when the drawdown of forces occurred.[58] And there were some in the USAF who believed air power could have done it alone. These perceptions, most inaccurate and some manifested by some Model II and III behavior, created an obstacle to clear communications and strong trust. Perceptions were important to behavior. With inadequate information in a given area, a commander's and his staff's perceptions influenced thought and action.

Air planners also had legitimate concerns outside the area where the ground forces would be fighting. President George Bush's objectives clearly indicated the need to strike targets outside the KTO. Air planners working these strategic targets felt too much emphasis was being taken away from their effort in fulfilling the president's objectives.[59] With a direct assault and occupation of Iraq unlikely, the highest ranking national leaders believed destruction of the strategic targets was important in establishing long-term stability in the region. Too many sorties removed from this effort would degrade it. Many officers concerned with engaging the Iraqi army on the ground saw the strategic air effort only as a USAF attempt to win the war by itself. These individuals often did not understand the importance of striking of strategic targets as a method of achieving stability after hostilities had ended. This lack of understanding contributed to the sometimes rough interaction between US Army officers wanting to prepare the battlefield and USAF air planners who were concentrating on strategic attacks.

It was Horner's position that there was no need to rush into the ground attack phase as long as the Coalition was continuing to inflict significant

destruction upon the enemy from the air. He reasoned there was no need to force the ground campaign while air was continuing to destroy 100 to 150 armor and artillery pieces a night; he advised waiting until the air destruction began to go asymptotic on the curve (reach a point of diminishing returns). In this regard, Horner was operating in Model I.

However, it was Horner's impression, along with his air planners, that the Marines and the Army—Boomer, Yeosock, and the corps commanders, Franks and Luck—wanted to begin the ground attack sooner than necessary. Horner did not oppose the ground campaign, but saw the issue as a matter of timing.[60] Thinking out loud to Colonel Deptula, Horner commented, "Let's do it when it is time. Let's not rush it. The end gain in waiting is saving lives."[61] In addition, Deptula recalled, "Horner, from my perspective, did everything he possibly could to work with the other component commanders to ensure an effective joint air effort. From my perspective, I never saw a parochial motivation on his part."[62]

The following is a summary of command interaction concerning battlefield preparation.

- The CINC, ARCENT commander, and the CENTAF commander operated Model I.
- The JFACC planners operated Model I+ in regards to finding ways to provide extra air to the areas in front of the corps commanders.
- Due largely to a lack of information and limited communication with the air commanders, the corps commanders exhibited some Model II behavior.
- Some Army corps/division commanders perceived Model III behavior on the part of some USAF officers and staff.
- Some USAF officers perceived Model III behavior on the part of some of the Army commanders and staff.

Joint Operations

In action, Horner was a pragmatist. He performed as a leader who was not hampered by preconceived notions, ideas, concepts, or doctrine. He did not dismiss doctrine out of hand, but was well aware of its limitations and the possibility of creating dogma in real world operations. Horner's open approach was critical to combined air operations in the Gulf War, which brought United States forces together in the first truly joint conflict since the passing of the Goldwater-Nichols Act.

No matter how negative members of other services felt toward the United States Air Force, or the manner in which joint combined operations were being conducted, there remained a positive respect for Horner and his Model I decisions and actions.[63] Although somewhat ironic, it is enlightening how the JFACC managed to retain such tremendous respect even though he was in charge of implementing new, somewhat radical, and often unpopular methods for Americans to conduct war, that is, the Air Tasking Order and the JFACC concept.

In the end, Horner was the key to pulling air power together in support of ground operations. Acting inside of Model I+, Horner retained respect among many other officers of other services who would think poorly of everything else having to do with the USAF.

A lack of direct interaction between the air and ground commanders, coupled with a lack of information flow between the CINC and his corps commanders, led to commanders and staffs pulling in different directions for targeting air power. This is an example where the lack of information, on the part of several organizations and decision makers, contributed to Model II behavior. This led to counterproductive efforts on the part of many officers and degraded joint operations. As much as the CINC stressed striking and destroying the Republican Guard, less than 10 percent of all strike sorties were directed at them. Even then, the majority of the sorties directed at the Republican Guard were not flown with the most effective aircraft, the F-111s and A-10s. Instead, the morale-broken and starved first echelon and the already heavily attrited and withdrawing second echelon Iraqi forces continued to be needlessly pounded. This frustrated air power planners who were confident about just how hard these first two echelon forces had been hit. And, as it turned out, the only truly combat effective Iraqi *divisions*[64] remaining on the battlefield were the Republican Guards. Better integration of air and ground forces would have resulted in more effective battlefield preparation.

It should be noted the CINC shares blame in not further reducing the Republican Guard. In the end it was Schwarzkopf who allowed targeting to be shifted away from one of his primary objectives—destruction of the Republican Guard.

Joint operations were not really tested. AirLand Battle and/or true joint combined arms integration were not realized during the Gulf War. With abundant, available air power in this conflict, there was not the pressing need to force integration. However, the lessons from Operation Desert Storm must be kept in context. If the United States fails to integrate effectively in its next major conflict, it may pay a price in both lives and results. Military forces will generally fight the way they train. Now is the time to integrate USAF and US Army combat forces. Suggested command improvements are discussed in the concluding chapter.

Notes

1. Lt Gen Gary Luck was the XVIII Airborne Corps commander. His corps was positioned to the west of Franks and the VII Corps.

2. The *31 Initiatives* of 1984 were formulated by the Joint Force Development Group. This was a temporary working group of six majors/lieutenant colonels from the US Army and six majors/lieutenant colonels from the USAF formed by the USAF Tactical Air Command (TAC) and the US Army Training and Doctrine Command (TRADOC) commanders. The group's charter was the Wickham-Gabriel Memorandum of Understanding. The terms set in the charter tasked the group with planning for a joint air-land combat force that would be effective

and affordable. The two services also pledged to increase joint participation in exercises, enhance interservice communication during planning and programming, increase interservice dialogue on AirLand Battle and related concepts, increase cooperation in deep battle programs, and resolve doctrinal and procedural concerns as AirLand Battle is integrated into joint theater of operations. After five months the group produced 32 initiatives, and all but one were accepted. The chiefs rejected the one initiative on joint battlefield intelligence because of its high complexity. Three weeks after the release of the *31 Initiatives*, the two service chiefs of staff institutionalized the biservice agreement by establishing the Joint Assessment and Initiatives Office (JAIO). The *31 Initiatives* addressed seven basic areas of AirLand combat: air defense, rear area operations, suppression of enemy air defenses, special operations forces, joint munitions development, joint combat procedures and techniques, and fusion of combat information; and Richard G. Davis, The *31 Initiatives* (Washington, D.C.: Office of Air Force History, 1987), 58–59.

3. Pat Pentland, interview with author, Maxwell AFB, Ala., 10 February 1994, 1.

4. Ibid., 2.

5. AFM 1-1, *Basic Aerospace Doctrine of the United States Air Force*, vol. 2, March 1984, 165.

6. Davis, 59.

7. Fred Franks, interview with Bill Mendel, Doug Craft, Bill Barry and Rick Swain, Carlisle Barracks, Pa., 31 October 1991; and Gary Luck and Frank Akers interview with Douglas Johnson, William Mendel and Douglas Campbell, Carlisle Barracks, Pa., 8 April 1992.

8. Davis, 3, 35, and 47. In general, US Army officers place greater importance on written doctrine and documented procedures than do USAF officers.

9. Robert H. Scales, *Certain Victory* (Washington, D.C.: Office of the Chief of Staff, United States Army, 1993), 174–5.

10. Steven Rippe, "An Army and Air Force Issue: Principles and Procedures for AirLand Battle, A Perspective of Operational Effectiveness on the Modern Battlefield" (Fort Leavenworth, Kans.: US Army Command and General Staff College, 1985), 10–15.

11. C. A. H. Waller, interview with John Connolly, US Army War College/US Army Military History Institute, Carlisle Barracks, Pa., 3 June 1991, 59.

12. Davis, 35.

13. Fred Franks, interview with author, 23 March 1994, 12.

14. During World War II in Europe after the Allied landing at Normandy, there was an overabundance of air power. This overabundance allowed each field army, in practice, to have a dedicated tactical air command. However, the overabundance of air power is more the exception than the norm.

15. *JFACC Primer* (Washington, D.C.: Headquarters US Air Force, February 1994), 8.

16. Rippe, 10–15; and Vincent Orange, *Coningham* (Washington, D.C.: Center for Air Force History, 1992), 130.

17. Rick Atkinson, *Crusade: The Untold Story of the Persian Gulf War* (Boston, Mass.: Houghton Mifflin Company, 1993), 219.

18. Waller interview with John Connolly, 26–27.

19. Ibid., 27.

20. Charles A. Horner, telephone interview with author, 27 December 1993, 4.

21. Ibid., 5.

22. John A. Corder, interview with author, 22 November 1993.

23. Horner telephone interview with author. Horner was adamant that the board run by Waller was not a Joint Target and Coordination Board (JTCB) envisioned by much current military thought. Although the JTCB role and mission has not been firmly emplaced in doctrine, some of its proponents see the JTCB overseeing the JFACC by directing specific allocation, apportionment and targets to strike. Horner is opposed to this type of board and did not want Operation Desert Storm and Wallers board to be seen as a precedent.

24. David Deptula, interview with author, Pentagon, Washington, D.C., 21 December 1993.

25. Buster C. Glosson, interview with Suzanne Gehri, Richard Reynolds, and Edward Mann, Maxwell AFB, Ala., 29 May 1992.

26. Waller interview, 30.

27. Ibid., 29.

28. Buster C. Glosson, interview with author, Pentagon, Washington, D.C., 21 December 1993, 8.

29. Ibid., 9. Although the opinion of the Army officers at this briefing is circumstantial evidence, the author believes it to be accurate. At this point in the interview, General Glosson was being self-critical and introspective, admitting a failure to communicate with officers of another service. Deptula agrees with Glosson's view of the Army officer's opinions.

30. Deptula interview, 5.

31. Ibid., 16.

32. Glosson interview, 21 December 1993, 5.

33. Richard B. H. Lewis, "JFACC Problems Associated with Battlefield Preparation in Desert Storm," *Airpower Journal,* Spring 1994, 12.

34. Corder interview, 14.

35. John Yeosock, conversation held with Flag Officer Joint Targeting Course staff, Maxwell AFB, Ala., March 1994.

36. The aircraft which impacted BDA were F-111Fs, F-15Es, A-10s, and A-6s. These aircraft were considered by the US Army to be effective in destroying armored vehicles because of their precision weapon capability. The precision weapon capability was "sold" to the US Army by the USAF mainly through "gun camera" film. Other aircraft did not impact the BDA assessment conducted by ARCENT. Subsequently, less attention was placed on the sorties flown by the "non-BDA impacting" aircraft.

37. Lewis, 13.

38. Deptula interview, 11.

39. H. Norman Schwarzkopf, *It Doesnt Take a Hero* (New York: Linda Grey Bantam Books, October 1992), 438. Due to a serious gall bladder condition on 15 February, General Yeosock had been medically evacuated to an American base in Germany for surgery.

40. Atkinson, 339.

41. Deptula interview, 11.

42. Memorandum for Record, John A. Corder, subject: Maj Gen John A. Corder's personal papers, 18 February 1991, Historical Research Agency, Maxwell AFB, Ala.

43. Corder interview.

44. Mohammed Kazam, interview with author, Maxwell AFB, Ala., 3 May 1994; and Cas Saleh, telephone interview with author, 10 February 1994.

45. Deptula interview, 7.

46. Corder interview, 15–16.

47. Central Intelligence Agency, "Operation Desert Storm: A Snapshot of the Battlefield" (Washington, D.C.: Central Intelligence Agency Publications, September 1993). Note: Percentages were extrapolated from data available in this publication. The determination of which echelon the Iraqi forces were attached to was determined by the author.

48. It is becoming clearer that the Iraqi leaders decided they could not defend Kuwait and were in the process of a large repositioning movement/withdrawal when the Coalition ground offensive began. The repositioning or withdrawal included Iraqi regular army forces employed in Kuwait. The third echelon forces, which included the Republican Guard, were largely in Iraq and Saddam, not anticipating a Coalition attack into Iraq, initially left them in place.

49. Cas Saleh telephone interview, 20 February 1994. Mr Saleh worked behind Iraqi lines in the period before the ground war.

50. Kazam interview; and Saleh telephone interview, 10 February 1994. Mr Kazam is a Kuwaiti air force officer who has spent considerable time examining the battlefields.

51. Fred Franks, interview with author, 23 March 1994, 9.

52. Ibid., 14.

53. Gary E. Luck and Frank Akers, interview with Douglas V. Johnson, William B. Mendel and Douglas Campbell, Strategic Studies Institute, US Army War College, Carlisle Barracks, Pa., 3 June 1991, 24.

54. It should be noted that as the war neared the ground campaign phase, the relationship between the CINC and his air commanders began to change. The CINC would make specific allocations of aircraft strike sorties based on reports of estimated enemy combat capability.

After the middle of February, in regards to battlefield preparation, because of the CINC's unpredictable and significant inputs, Horner would delay directing specific allocation until the CINC made his. After the attack on the Al Firdos bunker, anticipating negative public reaction, Schwarzkopf, with pressure from Gen Colin Powell, also began disapproving many strategic attacks, especially around Baghdad. Although he would not specifically say "no," the CINC would comment, "Let's hold off on this one." In the end the targets were mostly left unstruck. Deptula interview.

55. Glosson interview with Suzanne Gehri, Richard Reynolds and Edward Mann, 9.
56. Ibid., 98.
57. Horner telephone interview, 8.
58. Waller interview.
59. Deptula interview.
60. Horner telephone interview.
61. Deptula interview, 5.
62. Ibid., 2.
63. In the interviews conducted by the author, there was a reasonable amount of criticism of the USAF, but almost none of General Horner. In addition, few documents from any service criticize the Gulf War JFACC to a significant degree.
64. There were combat effective Iraqi units in the KTO, *below division level*, which remained on the battlefield and fought.

Chapter 6

The United States Air Force

Kenney was my hero. I tried to emulate him. You remember that Kenney was the brains behind MacArthur's success. I'm not the brains behind Schwarzkopf's success, but I tried wherever possible to emulate that relationship, because, that is the way to fight modern war. If you think about it, MacArthur captured more territory with fewer casualties than any other general. And strictly because he knew how to use air power. There were two things I always kept in mind in dealing with Schwarzkopf. One, was that he was smart. When I went to explain an air operation to him he would understand it immediately. Second of all, he gave a . . . about the lives of his troops. So, if we could we would do the job using air power, á la Kenney and MacArthur, we would. Remember the air campaign was completed about the end of August and it was briefed to Schwarzkopf, he accepted it in total—generously. We made a few minor changes, but then, it was always the centerpiece of the whole strategy.

Would Schwarzkopf have been happy if the Iraqis would have backed off with the air campaign, without a ground invasion being necessary? Why I think so. But, I don't think that . . . only the air power air heads talk about no need for ground forces and all that . . . .

— Lt Gen "Chuck" Horner
Commander, Central Command Air Forces

During the Gulf War there were conflicts in deep fire coordination (fires beyond the traditional range of close air support). These conflicts were not of major consequence in regards to the outcome of the conflict because the Coalition possessed abundant assets. However, the conflicts, or inability to maximize effective coordination during the Gulf War contributed to the escape of over 600 Iraqi armored vehicles from Kuwait. And if integration is not improved, significant problems could occur in future conflicts; therefore, it is worthwhile examining this issue.

Deep Strike Coordination

Through the 1970s, the US Army had been primarily concerned with close-in battle. The vast majority of training, study, and effort had been dedicated to maneuver and fires, concentrating on the area only a few miles behind the enemy lines. There were no compelling reasons for the US Army to look much deeper. Potent long-range artillery systems could only reach out a few miles; and commanders' immediate concerns were their soldiers in contact with enemy forces.

However, in the early 1980s the US Army began developing doctrine that looked deeper than just a few miles behind the battle lines. Inclusion of depth as one of the four doctrinal tenets in the 1982 edition of Field Manual 100-5 indicated that the US Army had begun to appreciate deep fires more fully and the impact they could have on battle. Accompanying these changes in doctrine was the development of longer-range striking systems which, by the time of Operation Desert Storm, included Apache attack helicopters, multiple launch rocket systems (MLRS) and the Advanced Tactical Missile System (ATACMS). These systems have the ability to reach far beyond traditional indirect fires.

In contrast, the USAF has long been concerned with deep battle. Indeed, the whole concept of air power is based on its ability to strike the enemy in-depth. The ultimate deep battle has been strategic attack, but the USAF has also placed significant emphasis on interdiction. Taking a cue from World War I, the USAF saw striking deep not only as a more efficient way to attack the enemy, but as a method to avoid extremely costly ground force stalemates.

Until the US Army changed in doctrine and acquisition, the US Army and the USAF coordinated deep fires with relatively little conflict. The USAF controlled fires behind the Fire Support Coordination Line (FSCL) while the US Army controlled fires inside the FSCL. And the FSCL remained at a relatively fixed range, out to about 15 kilometers. The greatest issue of contention between the two services concerning fires was generally how much CAS the USAF would commit to a campaign or major operation.

But in the 1980s, as the US Army garnered the ability and will to strike deeper, conflicts began to emerge. The US Army feels it has an inherent right to strike any target in any location which may effect its operations on the battlefield.[1] On the other hand, many in the USAF see the US Army firepower beyond the FSCL as minuscule when compared to tactical fixed-wing air power and, generally, a hindrance to executing the most effective employment of airstrikes.[2] The joint integration of deep fires may be divided into two main areas for the Gulf War: deep fire integration during the air campaign and deep fire integration during the ground campaign.

Air Campaign Deep Fire Integration

Some integration of deep fires and deep strike forces occurred during the air campaign. These integration issues were primarily US Army aviation and missile systems supporting air attacks. On the opening night of the war, USAF Pave Low helicopters led US Army Apache helicopters on attacks against Iraqi radar sites. Also, US Army ATACMS were launched against Iraqi surface-to-air missiles (SAM). In support of these Air Force missions, Franks noted the first round fired by VII Corps since World War II against an enemy of the United States of America was by an ATACMS driver, and it was fired in support of the Air Force on an SA-2 site. Franks made a point of emphasizing that the USAF did not have to go through a long drawn out fire coordination procedure to get the mission fired. He stated, "Now, I didn't say,

'Now wait a minute. Submit your targeting nomination. And we'll put it through a targeting board, prioritize it, and so on.' We called the battery and said, 'Pull off the road and shoot the mission,' and they shot it and destroyed the SA-2 site."[3]

Franks also realized that the ATACMS firing the mission made sense. It allowed the Coalition air forces to stage attacks in an area near an SA-2 SAM missile site without having to attack the missile system itself. The SA-2 site was in the way, and taking it out with the ATACMS was a smart way to do business. This saved precious Coalition SAM suppression aircraft for other longer-range missions. The ATACMS and the tactical aircraft were complementary.

But the ATACMS was a limited and expensive asset. In the end, the USAF planners were not able to coordinate as many ATACMS support missions as they would have liked. Deptula noted that this type of joint integration was more the exception than the rule:

> Early on I wanted to use those ATACMS to suppress some of the SAM sites before we used manned aircraft to go in there. I wanted to get them on the ATO as well to make a doctrinal point that the JFACC ought to control everything that flies through the air. I explained everything I wanted to do, and I needed 18 ATACMS to suppress the six sites we were going in to hit in Kuwait. And so I talked to one of my Army counterparts, Bill Welch. He said, "Hey great idea, Dave. But I need to go to Yeosock for release authority because he is the one who controls those ATACMS." I needed 18. Do you [know] how many we got? Two. Why? He wanted to retain those and save them for the corps commander. They were corps assets. The corps commander could push the button. Another good example of what I think is the parochial perspective as opposed to the joint approach.[4]

Deptula makes a legitimate point concerning the employment of the ATACMS. With only two of 18 ATACMS approved, only one SAM site could be suppressed. Since the bulk of Coalition sorties went to preparing the battlefield for the ground invasion, a few more ATACMS shots to suppress enemy air defense systems were probably not unreasonable.

The US Army perspective should also be examined. The ATACMS is an expensive system, bought and employed in limited numbers. It was acquired to provide responsive, deep strike, all weather, precision fire support. Although the USAF can provide much more firepower much less expensively, in the US Army's view, it cannot be counted on to be as responsive as the ground commander might want or need it to be. In addition, the USAF has an even more limited capability to deliver precision ordnance in all weather conditions. The ATACMS provides, at considerable expense, more options to the ground commander.

It should also be noted that some of the deep fire issues prior to and during the air campaign were never really brought to a head by the component commanders. Instead, issues were generally worked at levels below these senior leaders. Although staffs failed to get the level of integration and support they desired, "make do" was generally the final response from more senior commanders.

In addition to ATACMS, deep fire coordination was also less than optimum in regards to Apache weapon systems. US Army adherence to established doctrine played a part in denigrating effective joint employment. During one battle staff meeting, Horner was leading a discussion on how to best reduce the Tawakalna Division. Horner's specific comment, which was directed at the BCE representative, was,

> You know, it sure would be nice if we could use some of those Apache attack helicopters against the Tawakalna Division. The US Army colonel immediately replied, "Can't do that, sir. Those helicopters are corps assets. They are a maneuver element. Using them that way is not in accordance with Army doctrine." Horner, just kind of looked at the US Army colonel and stated, "We don't use the "D" word [doctrine] around here."[5]

It may not even have been practical to employ the Apaches in many instances due to system maintenance, range, enemy defenses, among others. However, the possibility was not discussed as fully as possible because Army adherence to doctrine made further discussion a moot point.

Horner was not interested in doctrinal rivalry. He was interested in mission accomplishment. Since the Army adherence to doctrine was so strong on helicopters as an established maneuver element, there was not enough inertia to overcome it. There were some legitimate US Army concerns in preserving assets. Many of the US Army helicopters were stretched for maintenance,[6] and the US Army commanders planned to employ the helicopters extensively during the ground campaign. But use of the Apaches in conjunction with the tactical fixed-wing assets should not have been dismissed out-of-hand. The Army probably could have afforded some small number of integrated attacks with the Apaches prior to the ground campaign. In the end, the Apaches were not employed in coordinated attacks with tactical air.[7] Horner commented,

> We never exploited the Apache like we could have prior to the ground war starting. We put the first forward coordination line on the political border because it just made sense. That meant to go beyond that, the Apache had to be in the ATO, and the Army didn't want to do that. Eventually we gave them boxes. But the trouble is they would reserve a box for eight hours but they would only use the last fifteen minutes of it. It gave the enemy a sanctuary.[8]

Less than optimum coordination of US Army/USAF assets degraded battlefield effectiveness to a degree. But USAF officers were not the only officers who thought the Apaches could have been better integrated with tactical fixed-wing airstrikes. During the ground campaign, the inability to integrate Apache and fixed-wing assets became an issue with Franks. Again, as with the ATACMS, this issue was never brought to a head at the most senior levels. It was left for the staffs and subordinate commanders to work out. In the end, US Army doctrine and bureaucracy, as well as the lack of prior USAF/US Army planning, practice, and training, inhibited integration.

Horner noted another possible problem with joint force integration. He believed the US Army had a fear of integrating into the ATO and that this fear became a hindrance to joint operations. He stated,

> They [the US Army] felt that if they were in the ATO, it meant the Air Force owned the Apache. Since then I have talked to Rudy Kwortinvich down at Fort Rucker. And I told him, "You guys were stupid." And he agreed. It is just that the Army ground guys don't understand air and don't know how to employ it. They want to employ it like a jeep with a machine gun. Particularly inside the FSCL, that is exactly how they would deploy it. But beyond that you need to have it integrated in the air superiority CAP, the wild weasel.[9]

So in the mind of the senior USAF leader, there were US Army fears of the USAF driving the operation of their fire support assets. This fear led, in part, to a reluctance on the part of the US Army to integrate further.

Integration of Deep Fires during the Ground Campaign

In regards to employing firepower, in some ways, the US Army went beyond their doctrine—the whole concept of the extended battle space and simultaneous, deep attacks (as opposed to sequentially driven targeting in shaping the battlefield) was a step beyond the field manuals. But solid joint integration was not to be realized in this conflict. During the ground campaign, as during the air campaign, there was some difficulty in integrating the firepower assets of the different services. At issue once again was coordination of the Apaches with fixed-wing airstrikes. Franks recalls,

> It was the night of 26 February when we had, essentially, a four division night attack, going from north to south. I wanted to extend the battle space. So we sent the attack helicopters deep in front of the Big Red One, a battalion of Apaches. F-111s, I was informed, were working Highway 8. Now the Apaches went out about 80–100 kilometers in front of the Big Red One and essentially destroyed sizable Iraqi force[s] in that area. When they came back though with their BDA, their recommendation was that they go deeper to Highway 8. Then, at midnight, [until] one o'clock in the morning, we discussed how could we link the F-111s and the Apaches together in a coordinated, continuous attack and shutdown Highway 8 completely—mass helicopters and F-111s the rest of the night. Well, nobody had ever done it. And it didn't seem to me that the third night of the war at one or two o'clock in the morning was the time to try to put that together.[10]

In this instance, the attack helicopters and the F-111s continued to work in separate areas, causing significant destruction of Iraqi forces. But if these weapon systems had been integrated, the resulting synergism might have inflicted even more casualties upon the enemy. However, such integration, essentially a Joint Air Attack Team (JAAT), if considered viable, should have been practiced and perfected prior to combat, not developed during it.

During the ground operation, the US Army was provided much more air power than it needed or could effectively integrate on the battlefield as CAS. As a matter of fact, very little air power was actually employed as CAS. US Army direct fire weapon systems, supported with artillery, generally provided adequate fire for its needs as far as close-in battle was concerned. So most of the USAF air support was therefore employed as close interdiction or released to strike preplanned interdiction targets. Franks commented,

> The closest thing we had to classical, you know, national training center type, close air support was with the 2d Cavalry. They were the covering force, and they had

> what we visualize close air support to be—aircraft attacking targets that are in the same battle space as ongoing direct fire engagements. Most of the time it just was not the right thing to do with the air, it did not complement the direct fire fight. Our direct fire systems were doing fine in that kind of exchange, and where we needed the air was a little deeper. We had a rolling, attacking mechanism. That's the way the commanders tended to use it. If we would have focused it all up close, you would have stopped the momentum of the ground attack, because of fratricide and so forth. So to keep the momentum of the ground attack moving, the divisional commanders pushed the close air support deeper.[11]

It is somewhat ironic to note that the bulk of Coalition strike sorties assigned "push CAS" missions were employed more like BAI than CAS.

Before the ground offensive, Franks was frustrated with the air ground coordination. As he practiced maneuvering his ground forces before the conflict, he wanted to also exercise his air coordination elements. So prior to the start of the ground war Franks attempted to move the FSCL some distance north. This would have allowed VII Corps a more direct role in controlling the breaching preparation and provided real experience to his forward air controllers. Franks noted,

> Now, why was that important? Well, by the time my troops closed in to the theater, the air campaign had already started. There were no available training times for my air-ground tactical air control parties to practice with the air, because the air was already working the air campaign. So I said, "Look, push the fire support coordination line north of the Iraqi-Saudi border 20 kilometers. Then let's call in close air support. You are going to attack the targets anyway, just make them close air support and then we will use either airborne or ground FACs to call those in." In that way, the 1st Cavalry Division, the Big Red One, the Brits who had never worked with the US air before, would have the opportunity to crack this. I couldn't make that happen.[12]

Deep interdiction targets did not require coordination between the USAF and the US Army forces. These very deep targets, open for airstrikes, were generally beyond the Euphrates River, although there were some isolated coordination problems north of the Euphrates. So, in essence, difficulties in deep fire coordination existed between the deep strike targets and close control areas near the ground forces.

The primary method for coordinating deep fire in the Gulf War was the FSCL.[13] Airstrikes inside the FSCL required Army commander approval. Airstrikes outside the FSCL did not require such approval. Traditionally, the FSCL had extended approximately 15 kilometers in front of ground forces. In the Gulf War the FSCL extended as far as 100 kilometers in front of friendly forces.

Before the ground campaign, the FSCL was the Saudi-Iraq/Kuwait border. The Army would occasionally make a few forays across with helicopters, but primarily nobody crossed the FSCL unless they were in the ATO. Once the ground war began, the FSCL was placed out about 15 to 20 kilometers. For the first day or so, operations went fairly smooth. On the third and fourth days, however, FSCL placement became a matter of contention. There are two examples.

First was when the XVIII Airborne (ABN) Corps reached the Euphrates River. They moved the 101st Air Assault Division forward and established a base near Ali al-Salem airfield. The 101st mission was to cut the road on the south side of the river. On the evening of the third day of the ground war, the Army moved the FSCL about two miles north of the road that runs along the northern edge of the Euphrates River. Corder was very familiar with the ground battle plan and knew that no troops were to go north of the Euphrates River. He knew the ground forces were to go to the river, stop, and turn east toward Basrah. When he inquired as to why the FSCL was moved five or six miles north of the Euphrates River, the US Army responded they wanted to fly some helicopter sorties in that area. No ground troops were to be in that region. The XVIII ABN Corps wanted to employ its helicopters and not be run over or bombed by the Air Force. Corder recalls,

> I couldn't believe it. They were going to employ 24 sorties in the next 24 hours, so they cordoned off that entire area. I started talking to the Army guys and I said, "Look, we are going to have something like 300 armed reconnaissance sorties up and down that road in the next 24 hours. If you would just tell us what part of the road you want, and when you are going to be there, we will just block it off. We'll put it in the ATO and nobody will bother you." They wouldn't do that. They didn't want to be in the ATO. That would smack of control of their forces. I said, "Well, we are going to have to get that FSCL back down to the middle of the river so we can do our operations. You are going to lose 200 and something sorties if you don't let us go up and down the river."[14]

Finally, after much discussion with Luck's staff, the XVIII ABN Corps agreed to put the FSCL back where it was originally. The corps then continued to fly its helicopters anywhere they wanted without being in the ATO, as long as they stayed below 500 feet. The XVIII ABN Corps would not agree to being scheduled in the ATO, even if it was to only deconflict with fixed-wing, tactical air strikes.

The other FSCL issue concerned the timing of FSCL changes. Before the ground conflict, there was a handshake agreement between ARCENT and CENTAF that would give the USAF planners two hours warning on FSCL changes. This would allow the Air Force to divert any sorties from the ATO out of the area. The basic rule was if the FSCL had to be moved because soldiers would otherwise be killed, the US Army was to just move it and then inform the JFACC staff. However, time permitting, ARCENT was to give the JFACC two hours to redraw lines, inform subordinate units and clear areas.[15]

The issue arose when the XVIII ABN Corps got up to the river and made their 90 degree right turn. They wound up on the left flank of the VII Corps who had just made its 90 degree turn to the east. Now both the corps were moving. As the Iraqis tried to reposition, a large concentration of Iraqi logistics developed. The USAF had a six-ship B-52 strike planned on the center of this logistics mass. The XVII Corps called and indicated they wanted to move the FSCL past the area where this strike was going to occur. Corder asked for an additional 30 minutes. He recalls,

> I told them, "If you can put off the FSCL move for an additional 30 minutes, you will have the benefit of a B-52 strike." They replied, "Now. We want to do it now. We've got to do it now." And I said, "How close are your troops?" And they were still twenty-something kilometers away. "Listen," I say again. "We have several thousand tons of bombs we can drop on these guys if you will just give us another 30 minutes. It's your war. Whatever you want. We just think it would be nice to do that." So they finally agreed.[16]

It is inherently difficult to coordinate air and ground fires during mobile combat operations. But most of the time in the Gulf War ground campaign, FSCL changes were fairly amicable. The ground forces were moving very rapidly. Sometimes the FSCLs were moved on very short notice and the JFACC accommodated them. On the whole, sanity and Model I behavior prevailed, although there were instances where it did not. Glosson felt the handling of the FSCL was very inadequate near the end of the conflict. He stated,

> I'm not going to quibble over small moves and stuff. The one time that really torqued my jaws involved attacking the Hammurabi and the Medina divisions near the end of the war. We expected the FSCL to come down the Euphrates and then run down the north-south canal just to the west of Basrah and then drop down onto the top of Kuwait, due south. Then it would move due east to the Gulf. But when the FSCL was laid in, it was laid in straight down the Euphrates and down the canals. And I said, "Bull! I can't do that because the Hammurabi and Medina are just going to go flying up across that dry land like it was a road." So I went over and explained to Schwarzkopf and he said, "OK."[17]

The CINC did move the FSCL. However, when Glosson returned to Air Force operations and informed Horner, "I just got Schwarzkopf to agree to move the FSCL," Horner replied, "Yeah, but now they have just decided to move it back to where it was."[18] After the cease-fire, US civilian and military leaders seemed surprised to find out there were 600 to 700 tanks safely nestled in that protected corner. Those tanks and armored personnel carriers (APC) later crossed the river and helped suppress rebellious Shi'ites and Kurds within Iraq. This was the most significant failure of the FSCL issue. If the FSCL had been placed properly, Glosson is adamant that,

> The air forces would have destroyed the *major portion* of those armored vehicles. As it was, when the war ended, the Iraqis had 600 extra tanks to attack the Shi'ites and the Kurds with which they wouldn't have had otherwise. That is a big deal. That is not an insignificant thing. I was told later that Schwarzkopf made the decision, that he wanted the VII Corps to be the ones to destroy the retreating armor. But it is kind of hard to destroy it when you are 40–50 miles away. I don't know for sure who made the decision, but I know it was made.[19]

Franks agreed there were better ways to integrate air and ground power. In a joint theater that has a sizable land operation to it, where the land commander is given an area of responsibility, that commander ought to be the supported commander. Whatever goes in there ought to fit the scheme of maneuver of the land commander to accomplish the mission that he has been given by the joint force commander. Now, if other targets of strategic nature are involved which require strikes to be applied according to priorities of the

joint force commander, these strikes will obviously take priority over the supported ground commander. But over and above those sorties, the support should follow the priorities of the commander given the mission.[20]

Many USAF officers would agree with this outlook. However, many USAF officers do not believe the US Army is willing to extend the same kind of support to the USAF, when air forces are the supported element.[21] During the air campaign, the US Army was unwilling to offer more than minimal ATACMS and Apache support to airstrikes.

In practice there were problems integrating efforts on the battlefield by all components. Services were at times conducting operations and significant movements without coordinating with the other services. Forward air controller, Capt Ted Bale, piloting a Fairchild OA-10, recalls,

> I contacted the ABCCC [Airborne Command and Control Center] and was given a visual reconnaissance mission. No fighters were on station at the time. I was told to search for a group of 30–35 tanks that were detected moving the night before by JSTARS [Joint Surveillance Target Attack Radar System]. I found the tanks in a new position on a hilltop southwest of their original position. I started south and reported back to the ABCCC for targeting. I soon came to the berm [Saudi border] and just on the north side saw several vehicles heading west at a high speed. I called for fighters, but none were immediately available, so I began to coordinate for artillery fire. I called both the ASOC [Air Support Operations Center] and the ABCCC, and they confirmed no friendlies were in the area on the ground. They initially confirmed the area clear. After several minutes I then observed more vehicles. To my surprise they breached the berm and formed up in attack position on the north side. I then knew they were friendly and recontacted the ASOC to advise. They finally confirmed the vehicles on the ground were indeed friendly, but could offer no frequencies or call signs to contact them or the four helicopters that joined them. They began moving north at a high speed in what looked like a "movement to contact." I advised the ABCCC of the situation and closed the kill box to other aircraft. ABCCC found some fighters and diverted them to me. I planned to attack the trenchlines, armor, and artillery the friendly group was moving toward—the group I'd observed earlier. I thought I could keep the enemy's heads down to help our guys approach unobserved. I directed the A-10s on the artillery positions with their bombs and then had them work over the tanks with their Mavericks. Next, I brought in a flight of F-16s and put them on a 57-millimeter, AAA [antiaircraft artillery] site. It would have been nice to have some F-111Fs, but none were available. As I checked out with the ABCCC, I recommended they close the kill box until they could straighten out what was going on the ground—they concurred.[22]

Captain Bale's experience was one instance where the services failed to coordinate their efforts and available assets. ABCCC and the ASOC knew nothing of the significant ground movement into what had been a Coalition air force free fire zone. This uncoordinated ground effort could have resulted in friendly aircraft attacking them. While this incident might have been a simple oversight, and was not a frequent occurrence, it was also not the only such occurrence. There were other instances where lack of coordination resulted in casualties.

Corder recalls another incident in which fighters almost fired upon friendly helicopters, again due to interservice miscoordination. A pair of F-15s had

called AWACS requesting permission to down a pair of low flying aircraft in western Iraq. AWACS had no friendlies in the area, but called CENTAF to confirm. Corder asked his Special Forces representative if they had anyone in the area. The Special Forces representative said they did not have anyone flying there at the time, but that he would walk on down the hall to confirm. A minute later the Special Forces representative came running back yelling, "Don't shoot, they're our guys."[23] The flight was not listed in the ATO, and the result could have been a fratricide. Had the Army a procedure where significant ground movements into enemy held territory and helicopter sorties were directly integrated with or published in an *interservice* coordination instrument (such as an ATO which included Navy and Marine air), integration of deep fires with maneuver and deconfliction might have been improved.

Analysis

Coordination and integration between the USAF and the US Army could have been better. The key issue that must be resolved before USAF/US Army deep strike operations can be improved is organizational trust. Until this occurs, Model II will most likely continue to dominate the two services' integration.

The US Army seems to mistrust the USAF's intentions when the USAF attempts to integrate deep fire assets on USAF terms.[24] The US Army has spent millions of dollars developing its deep fire systems so the tactical ground commander on the battlefield has control of significant and responsive indirect fire support. Tactical air, on the other hand, is not controlled by the US Army and is viewed to be somewhat unresponsive. The perceived unresponsiveness is often exacerbated by inadequate joint practice and doctrine. This, in turn, results in some personnel in the US Army not understanding air power. Then the failure to understand air power leads back to mistrusting it.

The US Army is also somewhat suspicious of USAF intentions when the USAF attempts to integrate helicopter assets into the ATO system. This looks like an attempt by the USAF to "control" US Army air to many soldiers and US Army aviators.[25]

The USAF, in turn, mistrusts the US Army when it comes to battlefield integration of assets. The US Army attempts to integrate dedicated tactical air fully into ground maneuvers alerts USAF suspicions that the US Army is attempting to control air power, and elicit cries of the initial failure of air/ground integration in Operation Torch (North Africa during World War II).[26] The mistrust of both services results in the failure of full integration. In Operation Desert Storm, the land and air components essentially operated separately and coordinated their separate efforts. Due to the weakness of the Iraqi forces, the failure of fully integrated efforts and lack of synergism did not significantly influence the outcome of conflict. But this failure in integration did contribute to two Iraqi divisions escaping back into Iraq. This

was a significant impact upon operations. In future conflicts, failure in integration could result in defeat.

During the ground operation, Horner and his staff directed the air support of the ground effort through "Push CAS." Horner, knowing he had an abundance of air power, planned to use this technique to "flood" the battlefield with tactical air power.[27] But there was little direct contact between Horner, Corder, Glosson and the corps commanders. While plenty of aircraft were made available to the US Army, very little integration was preplanned. Essentially, the action of both service commanders can best be explained with Model II. Both services conducted business its own way. The use of the FSCL as a "line of demarcation" proved to be somewhat inflexible and resulted in air power not striking vulnerable targets.

The US Army commanders were reluctant to release more than a few resources to combined air attacks. Where they did release these assets, significant positive effects were achieved. More than once doctrine was cited as the reason for not integrating more.

On the other hand, the corps commanders were frustrated in their attempts to preplan airstrikes and combine air operations into their scheme of maneuver. The USAF response was generally, "We'll be there when you need us." But there are times on the battlefield when the ground commander would like to orchestrate fires before going into battle. Through preplanning, the commander can then be more flexible with his tactics and firepower once engaged. Although the USAF provided plenty of firepower, it was not always coordinated to the US Army's satisfaction.

The CINC and component commanders chose not to engage one another over these controversial issues. They chose to allow sensitive issues to slide in the interests of interservice cooperation. And in this instance, this might have been the wisest decision. The Coalition force was overwhelming. The possible synergism gained by better integrated combined deep fires probably would not have been worth the accompanying discord. And due to the lack of prior practice, it might have been difficult to achieve this synergism in any case. The CINC and component commanders realized that the overwhelming firepower would make up for, in this conflict, less integrated forces. On the whole, choosing to stay Model II may have been the best Model I decision which could be made at the time. However, following the Model II route did contribute in allowing the escape of over 600 Iraqi armored vehicles.

Above the component commanders there was little interaction that had a direct influence on the conduct of deep fire coordination until the CINC moved the FSCL on the last day of the ground war. With the component commanders and below reasonably satisfied with the method in which deep fires were to be coordinated, there was little for Schwarzkopf and Horner to referee.

- Leaders in both the USAF and the US Army sometimes operated Model II during the air and ground campaigns.

Joint Operations

There is still contention as to which service controls which area on the battlefield. The USAF has clear control of deep strike while the US Army has clear control of close battle. But in the gray area where close battle and deep strike meet, there remains controversy as to which service is in control. Until this gray area can be better resolved, true joint, combined-arms attacks will not be realized. Franks looks forward to a better integration of air and ground assets, but the USAF fears it will be at the expense of USAF control. The USAF believes this is not an irrational Model II concern. There is a legitimate concern by the USAF that the US Army will focus on the close-in battle at the expense of strategic attacks and interdiction, which are often the best places to apply limited air assets.

The US Army also harbors underlying concerns that allowing USAF to control too much of its aviation assets could result in the US Army losing control of them. One must remember that the USAF was once part of the US Army and succeeded in separating from it. It is only through a long period of time and very significant expense that the US Army has been able to develop an aviation component which it feels is truly flexible to the needs of the ground commander.

In conclusion, the USAF and the US Army both see better integration as important to actual combined arms employment. But each service is reluctant to allow the other service the necessary control of its assets to actually effect the combined arms concept. One possible option would be to temporarily detach forces to other units for specific missions. After a specific mission is accomplished, the units revert back to their original command authority. To do this would require training, planning, and, most of all, interservice trust. Until the US Army and the USAF can put aside mistrusts, fully integrated combined arms employment will not be achieved.

Notes

1. Gen Crosbie E. Saint, briefing to Army general officers, Fort Leavenworth, Kans., November 1991.
2. John A. Corder, interview with author, 22 November 1993; and David Deptula, interview with author, 21 December 1993.
3. Fred Franks, interview with author, 23 March 1994.
4. Deptula interview, 16–17.
5. Ibid.
6. Ted Bale, interview with author, 18 January 1994.
7. Deptula interview, 17–18.
8. Charles A. Horner, telephone interview with author, 27 December 1993.
9. Ibid.
10. Franks interview, 13.
11. Ibid., 9.
12. Ibid.

13. The FSCL is not a new concept. In World War II, the FSCL was a permissive measure, a line beyond which aircraft could drop ordnance without coordination. Short of the FSCL, aircraft had to coordinate with the ground unit for clearance to expend.

14. Corder interview.

15. Ibid.

16. Ibid.

17. Buster Glosson, interview with author, 18 December 1993, 9.

18. Ibid.

19. Ibid., 10.

20. Franks interview, 15.

21. This is based on the author's experience working with the US Army as a forward air controller and an air liaison officer.

22. Ted Bale, interview with author, 15 January 1994.

23. Corder interview.

24. Based on author's experience as a forward air controller and an air liaison officer to the 1st Infantry Division (Mech), the 4th Infantry Division (Mech), the 24 Infantry Division (Mech), the 82d Airborne Division, and the 101st Air Assault Division.

25. Ibid.

26. Vincent Orange, *Coningham* (Washington, D.C.: Center for Air Force History, 1992), 130; and Steven Rippe, "An Army and Air Force Issue: Principles and Procedures for AirLand Battle, A Perspective of Operational Effectiveness on the Modern Battlefield" (Fort Leavenworth, Kans.: US Army Command and General Staff College, 1985), 10–15.

27. In "Push CAS," fighters were cycled through a specific point every so many minutes. If during a certain time period they did not get tasked by the US Army, they proceeded to a preplanned target. Only one-third of the sorties offered to the US Army were used by the US Army. The remaining sorties attacked preplanned targets well beyond the FSCL.

Chapter 7

Conclusions and Implications

A man's got to know his limitations.

— Clint Eastwood as Dirty Harry in *The Enforcer*

In this conflict the most senior leaders worked mostly in a rational manner—Model I. These senior leaders included Schwarzkopf, Waller, Horner, Boomer, Yeosock, Arthur and Mauz. But at levels below these senior leaders, specific organizational perspectives played a more significant role. Here the Model II and the perception of Model III gain explanatory power.

The key to maintaining a Model I environment was the big picture outlook. A great deal of unproductive interservice interaction could have been avoided by more individuals looking beyond their own perspective and service component. In the absence of the big picture understanding, which isn't always available to subordinate commanders and staffs, trust is absolutely critical. But as Ringo Starr sang, "I don't ask for much, I only want trust and you know it don't come easy." Although crisis can drive services apart (e.g., USMC/USN at Guadalcanal and USMC/USA at Saipan), crisis can also increase trust and bring services closer together. Trust can also be gained through understanding, which, in regards to the US military interservice integration, is normally acquired through joint education and training.

Compatibility in doctrine and hardware is also important to joint integration. Although the different services may require different weapon and weapon support systems, these systems must be compatible. Joint doctrine is still in development. The absence of an accepted joint doctrine results in services developing initial courses of action which at times do not complement one another. This absence also hinders joint training and the understanding of the other services.

Doctrine is the base or starting point for action. Doctrine can very easily develop into dogma. Too often, services lock themselves into specific courses of action and conduct operations in a particular manner, only because doctrine indicates that is the way to do it. Doctrine does not account for all the variables on the battlefield and cannot replace independent, timely, and rational decisions/actions. Model II thrives when doctrine is too religiously followed.

Command

Every officer must continually reevaluate his/her decisions and actions on and how they are in consonance, or not, with joint operations. Falling into Model II or Model III based decisions and actions is all too easy and can be insidious. US military officers must continuously make serious efforts to maintain a national outlook on their service to country. The service is to nation, not service to military service. It is possible to balance service loyalty and personal beliefs with effective joint efforts. But it requires knowledge, understanding and empathy.

This study has demonstrated that command relationships at the top generally worked well in the Gulf War. There was relative unanimity among the CINC and component commanders. The major difficulty, however, was at the senior and staff levels just below the component commanders. Here is where the most friction existed. Officers in these positions must be especially aware of this—they might have the most difficult job in the war: fusing the operational and strategic guidance from the CINC and the component commanders with the tactical realities of their respective services. *The most senior commanders, however, must not be satisfied with good relations at their level.* In the end, they as commanders are responsible for the interaction of their subordinates and their staffs. If their subordinates and staffs are not integrating well, fault can be traced back to them. Although not strongly evident in this study of this conflict, it is easy for commanders to place themselves "above" the wrangling at the lower levels, ignoring conflict, and not making tough decisions. This can be the mark of a poor leader.

Doctrine

Doctrine is a tool, it is not a holy writ. It serves as a common frame of reference for planning and conducting operations. It serves to improve communication and understanding among different organizations. Doctrine also provides a basis for initiating strategy and operations. Joint doctrine serves in all these respects, but has an additional function in that it also links the different services together. It is all too easy for commanders to be mired in doctrine and past methods of conducting business, losing the benefits of innovation which lead to flexibility. The different services viewed doctrine in different ways, and usually for good reason.

For the US Army, doctrine is an important method for control. It is driven by the ground commander's requirement to deal with thousands of independent individuals and weapon systems. During the Gulf War, Army doctrine failed to anticipate the dominant role played by air. The Army does recognize that "the control and use of the air will always affect operations; the effectiveness of air operations in fact can decide the outcome of campaigns and battles."[1] The doctrine's shortfall was in not providing guidance to commanders on how well land operations can help gain and exploit control of the air, especially in regards to deep operations.[2]

The USAF sees doctrine in much more general terms. Airmen pride themselves on flexibility; and rigidly stating how one is going to conduct war seems contrary to how many air leaders want to conduct operations. General Horner stated, "doctrine is . . . ." He said that not because he did not believe doctrine could be useful, but to make the point that overadherence to it can lead to dogma and disaster. In his mind, too many commanders from all services rely too much on doctrine. This can be to their detriment.

The Gulf War validated much of USAF doctrine and underwrote the claims that air power *can* be the decisive force in warfare. But air power doctrine fell short when integrating with the land forces, especially when these land forces are used to secure bases and "fix" the enemy.[3] Like the US Army, the doctrine was good insofar as its primary medium was concerned, but fell short in integrating with the other mediums.

The USN is often accused of "not having doctrine." The USN prides itself on providing flexibility to individual commanders to adapt to given situations and be more fluid in their decisions. However, the USN had developed its own rough procedures as a base point for conducting operations, it just hadn't formally termed them as doctrine.[4] Included in this was the Navy's maritime strategy, which was used by naval commanders to help guide decisions. But maritime strategy did not offer how carrier-based air power should be employed to gain superiority, wage a strategic campaign, or most effectively integrate with other services in battle.[5] Here, as with the other service components, the Navy's "doctrine" fell short in providing guidance when employing force outside its primary medium.

But today, the USN is aggressively developing its roles and establishing doctrine. Today, the USN is the most aggressive of the services in developing joint procedures and interservice interaction. Some of these aggressive efforts have included the establishment of a doctrine center, greater participation in joint staffs, the development of air tasking and communication systems and a rewrite of their primary roles and missions.[6]

The Marine Corps, which owns significant air *and* ground assets, also falls short in its doctrine. Its doctrine almost entirely ignores the impact air power has made on modern warfare. In regards to integrating air power, the USMC appears almost against integrating with the other services. Its doctrine states, "A MAGTF commander must be prepared to articulate the most effective operational employment of his MAGTF in a joint or combined campaign."[7] The manual then notes, "if he cannot, he will in effect depend on the other services to fully understand the capabilities of the MAGTF and employ it correctly, an assumption which is likely to prove unwarranted."[8]

The US military should continue its efforts to establish joint doctrine, realizing it will be only a starting point for directing real world contingencies. This joint doctrine should be a "breathing, living" document, which is continually updated and revised.[9] The services should continue to educate its officers on how the other services develop and apply their own doctrine.

The military needs to develop a two-pronged approach to better align the different services' doctrine. First, effective joint doctrine needs to be developed

where standardization is possible. Especially in a period of force reduction, units can be assigned to a number of different theaters and can expect to work closely with the other services. It is important to have standardized joint doctrine wherever possible to reduce the friction of working in new commands, theaters and environments. This standardization will result in quicker integration and reduced Model II behavior. Admiral Mauz noted some problems inadequate standardization brings.

> Well, I'll tell you, from my point of view, the Navy has been the most joint of all the services for years, outside the beltway. We're trying to exercise, work, operate, learn, an interact with other service systems such as AWACS, and in different areas such as Korea. The Navy is doing that on a regular basis. The Navy has worked with the Air Force all over the world, in every theater. In 7th Fleet we did a lot of work in the 5th Air Force in Japan and 7th Air Force in Korea and the 13th Air Force in Clark before that operation shutdown. And in air training I personally worked with the US Air Forces and Allied air forces in their training area and the 12th Air Force in reconnaissance and so on. It is my experience that most of these numbered air forces did things a little bit differently. That makes training difficult. For example, the ATO would be promulgated in several different ways, but in almost every case the ATO was prescripted; there wasn't much free play. Then the USAF system of exercising in peacetime around the world was different from air force to air force. This made it more difficult to integrate. Finally just getting together was difficult because the exercise schedules were written different. The services have different ideas about how to do this and tend to be somewhat inflexible with one another.[10]

Second, the services individually need to search for and fix disconnects in their doctrine with other services. Due to differences in regional commands, theaters, and individual military services, standardized joint doctrine is not a panacea to integration—war is too complex for a single doctrine to adequately cover it all. But where joint doctrine ends, it is paramount the individual services and commands develop specific integration procedures. Strong integration will result in fewer Model III perceptions and reduced Model II behavior.

There are instances where deviation from doctrine is desirable as a better way of employing combat forces. So the more a service relies on doctrine for maintaining control, the more it needs to be aware of doctrine's shortfalls and the more mentally prepared it should be for deviating from it or accepting change.

Command Location

Perceptions of Model III behavior caused problems during the Gulf War and resulted in some Model II behavior. The tragedy is that on the important issues, there was little evidence of senior commanders operating Model III, that is, making decisions and acting to benefit themselves or their service at the expense of CENTCOM operations. Nonetheless, these *perceptions* existed and effected integration. The Red Sea Fleet representative to the JFACC's Special Planning Cell stated in a report to superiors, "This war was utilized by the USAF to prove 'USAF Air Power'," and that, "The only aspect of the

war that the cell did not control, and they found it very frustrating, was the PAO [public affairs] war."[11] Smith also noted,

> The USAF controlled the ATO—they understood how to utilize the system to accomplish their goals. The Red Sea was generally effective operating within the system. The problems that did arise took two to three days to correct . . . . The entire ATO system from targeting, scheduling, implementing to final reporting was entirely controlled by the JFACC—CENTAF—an entirely USAF command that had zero [Navy] input from above the O-5 level—in other words, the USAF directed and controlled the air war as they saw fit.[12]

Some of the Marines assigned to the planning cells felt the same way.[13] Neither the Marines nor the Navy were represented with their component commander and the component commander staff at Riyadh. The result was Seaman and Marines believing they were being muscled out by a Model III oriented Air Force.

Levels of leadership below General Schwarzkopf and his component commanders (fig. 2) would have, through improved interaction and communication, worked more on a Model I level had all the component commanders been stationed in Riyadh. A number of differences and misunderstandings could have been more easily overcome and better joint operations might have been effected. While some Model II and Model III behaviors would have continued, it would have been easier to resolve issues. Officers away from Riyadh, in the USN and USMC, would have felt more comfortable with the overall command knowing their service was better represented to the CINC and his staff.

With the component commanders all together, sensitive issues could have been brought to a head sooner and resolved. The component commanders would also be able to monitor their subordinate staffs and ensure their officers maintained the big picture. Single individuals and small liaison staffs do not have the ability to interact as effectively as commanders and the

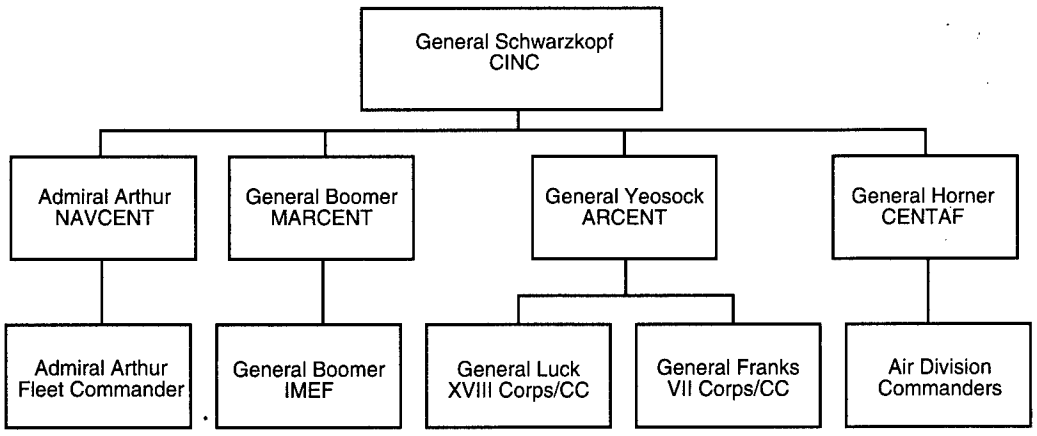

Figure 2. US Component Command Organization

commander's staffs. An effective commander and his staff enjoy 1) authority; 2) mass; and 3) a synergism created by a number of individuals working together, that mere liaison officers have difficulty achieving. The end result is the component commander and his staff can integrate much more effectively with other organizations and better maintain the big picture.

The USMC has realized the need to integrate more closely with the other services. In an effort to improve this integration, permanent component commander positions have been established for both Pacific and Atlantic areas of operations. These positions are separate from and in addition to the MEF commander positions. The MEF commander will be primarily responsible for tactical operations, and the USMC component commander will oversee integration and USMC interests at the command headquarters.

Commanders directly supervising tactical operations should not also be component commanders. For the Marines, COMMARCENT and commander, IMEF, should have been different individuals. While wearing both hats served the Marines well, it did not serve CENTCOM as a whole as well if had they been separate. The USN would have also been better served having two different individuals serving as the commander of fleet operations and as COMNAVCENT. Admiral Mauz highlighted the need for a senior admiral to oversee the tactical operations of the other seven admirals conducting operations. Arthur realized the need for COMNAVCENT to be in Riyadh looking at the big picture and overseeing the integration of naval forces with the other services. Both are right; there needed to be two separate individuals in these positions. One to command the tactical fleet operations and one to integrate those tactical operations with the other services. Horner ran the risk of having the same problem on the USAF side of the house. On the whole he overcame this problem by delegating a significant portion of the tactical operations to subordinate officers, General Glosson and General Corder. General Horner's primary efforts were in integrating the air effort between the different air and aviation forces. With the US Army, there was separation between the tactical commanders. General Yeosock, as COMMARCENT, maintained a solid theater wide/joint perspective. And as COMMARCENT, General Yeosock did a masterful job of supporting the US Army tactical forces and integrating himself with the other component commanders.

Component commanders should be collocated with the CINC and his staff for conflicts such as the Gulf War. The component commanders' primary concerns should be to build, develop and support his service's forces in-theater; coordinate and integrate his service's forces with the other services; assist the CINC planning for employment of his service's forces; and assist the CINC by commanding his service in the execution of tactical operations. The component commander should not become a bottleneck or a filter between the CINC and the tactical commanders in the field. The USMC has already taken steps in this direction. Permanent component commander positions have been established for both Pacific and Atlantic areas of operations. These positions are separate from and in addition to the MEF commander positions. The MEF commander will be primarily responsible for

tactical operations and the USMC component commander will oversee integration and USMC interests at the command headquarters.

CINC Interaction with Tactical Commanders

The CINC, or land component commander, should retain a direct command with the commanders of the largest tactical units on the battlefield. Currently this would mean bypassing some of the component commanders. One solution would be for the CINC to retain the option of using the component commander much as he might use an operational "chief of staff." Much like a chief of staff, the component commander could be charged by the CINC to execute specific directives, but the CINC always has the option of working directly with the tactical commanders without bypassing the formal chain of command.

In the case of directing air assets in the Gulf War, the CINC worked through the JFACC, positioned in Riyadh. In addition, the CINC worked regularly with Glosson, who with the JFACC planning staff, directed tactical operations. In the case of the ground forces, the CINC should have communicated directly with the corps commanders as he did with the IMEF commander. This would have bypassed the ARCENT commander, but the direct communication would have not been as likely to have been misinterpreted, delayed and/or misunderstood. The component commanders could still have and would have supported the field units, while being very well placed to advise the CINC during actual combat operations and continue close integration with the other services. The CINC should have been communicating directly with his highest-level tactical land commanders, not just the US Marines.

Note Figure 3 depicts the operational chain of command of US Coalition forces. The positions depicted by the solid line boxes represent the highest level of effective tactical command. General Horner, as the JFACC, maintained effective tactical control of all air forces. He did not need operational control of the joint/combined air forces to effectively direct their tactical employment. The nature of air forces allows for a greater measure of tactical control at higher levels.

Ground forces, on the other hand, with much larger numbers of tactical weapon systems, cannot always be controlled at as high a level as air forces. The US Army has determined, through experience, that the highest level of tactical command is the corps. This proved to be the case in Operation Desert Storm. The two corps commanders were effectively the US Army tactical commanders. Generals Luck and Franks controlled the battlefield. General Yeosock, on the other hand, generally coordinated and communicated between the CINC and his corps commanders. Although charged with responsibility for the employment of US Army forces, the CINC, acting as land component commander, drove the operational level of battle for the US Army. This placed General Yeosock somewhere between the operational level and the tactical level—he controlled neither. The result was the CINC, driving the operational

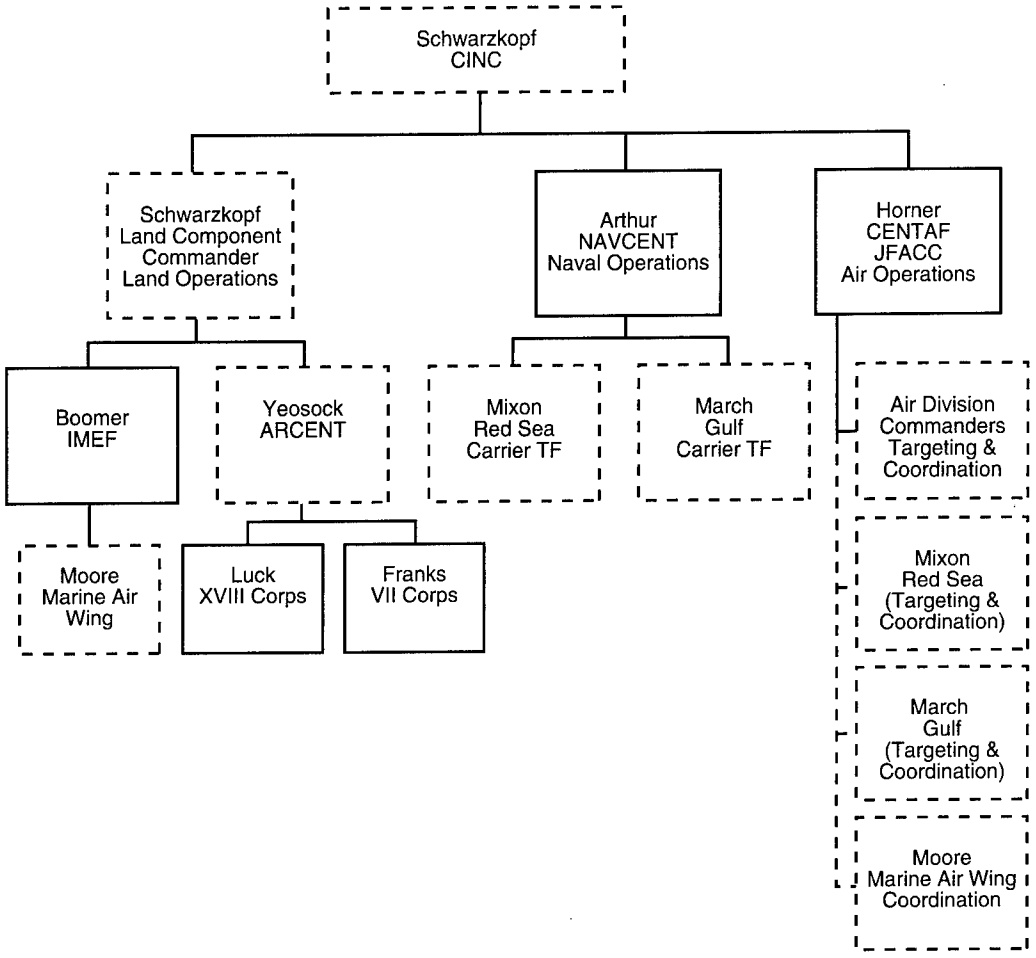

Figure 3. Operational Chain of Command during Ground Campaign. (Boxes with solid lines represent senior tactical commanders)

level of battle, but not communicating a great deal with his tactical commanders. This not only placed Yeosock in the middle, but also Yeosock's ARCENT staff. The result was less than optimal information flow and somewhat degraded operations.

Schwarzkopf liked Yeosock and wanted to allow him the authority to control the action of the corps. However, as Lt Gen John Cushman, US Army (Retired), argues, due to the nature of the Coalition, Schwarzkopf could not afford to allow Yeosock the authority to control the ground war.[14] This resulted in Schwarzkopf charging Yeosock with responsibility for operations,[15] but nonetheless, intervening significantly in ARCENT operations. The final result was less than optimum communications between the CINC and the tactical commanders.

The US Navy, in this conflict, established sea supremacy early and tactical control of ships of the fleet was not critical to the conduct of the conflict over the land. Also due to the nature of naval warfare, Admiral Arthur, who reported directly to the CINC, was able to maintain necessary tactical control over naval forces. Tactical employment of most naval aviation forces remained under the auspices of the JFACC. Through the ATO, General Horner and his staff had the final determination in the tactical employment of the naval air assets even though the US Navy maintained control of execution.

General Boomer, as commander, IMEF, maintained tactical control of USMC forces. He, like Generals Arthur and Horner, reported directly to the CINC. With General Boomer being both commander, IMEF and COMMARCENT might have detracted from his effectiveness as COMMARCENT, but he performed superbly as commander, IMEF. General Schwarzkopf worked directly with General Boomer as commander of the Marine ground forces and operations went smoothly. USMC aviation force tactical employment, like USN aviation force tactical employment, was effectively driven by the JFACC. Marine air, although allowed a great deal of latitude to strike freely inside their own area of operations, were also part of the ATO and coordinated with the JFACC staff.

General Schwarzkopf maintained direct interaction with his most senior tactical commanders as far as the sea and air forces were concerned. He maintained direct interaction with part of his ground forces, the USMC. But he failed to maintain direct interaction with the bulk of his ground forces, the US Army. This resulted in degraded communications and confusion on the battlefield, especially in regards to conflict termination. Regardless of the organization built by the CINC, the CINC must ensure in future conflicts of this type, that the CINC, as operational level commander, maintains direct interaction with his most senior tactical leaders.

Information

Since officers cannot operate according to Model I without adequate information, it is imperative for senior leaders to ensure it is provided. A rule of thumb would be for leaders and decision makers to be provided adequate information to operate two levels above their position. This would allow them to operate closer to the big picture. At the same time, senior commanders must be able to operate with adequate knowledge two levels below their position or act much on the advice sought for and provided by less senior commanders.

Army Field Manual 100-5, *Operations* (May 1986), discusses this subject. It indicates the standard is to 1) know the mission and concept of operation one level up, and 2) know the general intent two levels up.[16] But the burden of ensuring the knowledge is available to subordinates falls on the shoulder of the senior commander. In the Gulf War, it would have been helpful for the CINC to have ensured better information in regards to air power application and strategy provided to the corps commanders. This might have alleviated some apprehension and resulted in better air-ground integration.

Joint Force Integration

In Operation Desert Storm the United States failed to integrate *fully* its combat forces into effective joint operations. The first three phases of the war were conducted almost solely by air power. Although during the fourth phase, ground operations, there was some integration with ground controlled deep fire and aviation forces, the integration was not as extensive as it could have been.

During the ground operation, air power and ground power were employed mostly in separate geographic areas. FSCLs were a dividing line for the employment of ground controlled fires and deeper strike tactical fixed-wing strikes. Some methods, such as the use of tank kill boxes, the employment of air power resembled the Route Pack system employed in Vietnam, only this time it was between air power and ground power. The bottom line is that the failure to establish effective procedures for air-ground integration, perhaps altering command relations as the conflict entered the ground attack phase, contributed in the failure to accomplish one of the primary objectives of the war—the destruction of the Republican Guard forces.

Not only did the ground/air forces fail to integrate to optimize effectiveness, but the different aviation/air forces failed to integrate as smoothly as could be desired. This failure in integration was due to lack of joint training; lack of coordinated, joint procedures or doctrine; lack of compatible hardware/weapon systems; somewhat differing service missions; lack of broad perspectives on the part of some senior officers; and to some extent, competing parochial fears/interests. The bottom line is the different services need to develop effective joint doctrine, hardware and training procedures; and officers need to be provided a continual look into the big picture in regards to combat employment of US military forces. If this is accomplished, trust will further develop and most service selfish/parochial interests will go by the wayside. Knowledge and understanding are the keys to effective joint force employment.

As a part of standardization and coordination, new ways of integrating the forces of all services should be considered. One concept is interservice force packaging. Interservice force packaging would involve temporarily detaching forces from one unit and/or service to another unit for a specific mission. After a specific mission is accomplished, the unit would revert back to its original command authority. To do this would require training, planning and most of all, interservice trust.

It is possible to package joint combined arms the same way as counterair. In counterair, given a specific counterair mission, commanders would determine packages, tactics, and support. A coordinated, centrally controlled effort would follow. Force packaging and mission packaging should be explored and developed for joint combined arms employment between the different services. General Franks agrees that there are better ways to package combined arms other than relying on artificial methods such as Joint Target Coordination Boards (JTCB) and FSCLs. Inside the US Army this is a

proven method for employing forces. Reviewing the ground campaign, General Franks recalled,

> We mission package on the ground. An example is how we employed the Cavalry. I gave them a covering force mission in front of the Corps and so I reinforced them with the 210th Field Artillery Brigade and a battalion of Apache helicopters. Now when that mission was over I took them away. The 210th went to the Big Red One and the Apache battalion went back to the 1st Armored Division. All of the artillery of the Corps was there to fire in support of the breech. This included two artillery brigades. Now when the success of the breech was assured, then the two artillery brigades left that area of operations [and] joined the 1st and the 3d Armored Division on the move. Not an easy task. Nonetheless, we do that as a matter of routine on the ground.[17]

The more the services can get away from linear thinking and begin thinking in-depth and simultaneous attack, the more effective the combat capability will be. This will result in fires being placed along the entire battlefield instead of just the front. Missions can be tailored according to the priorities of the CINC and the supported commander—land, air or sea—and not tied to a specific doctrine of a specific service. By coordinating this way, mass and staying power will be more effective. Generally a military commander doesn't desire to merely sting an enemy. A military commander generally wants to smash and destroy that enemy. The US military needs to move towards a much more fluid, continuous, simultaneous application of combat power, and away from very stilted, big, thick target folders, three-day planning targeting cycles, and a lot of lines on a map.

USAF/US Army Command Alignment

While the corps, such as that which Franks commanded in Operation Desert Storm, became larger and more capable, the accompanying air power support/liaison integration remained a command level above it. Franks, although in essence the individual making the command decisions on the battlefield and charged by the CINC with the responsibility to engage and destroy the most lethal part of the Iraqi army, had very little direct interaction with the air commanders. General Franks noted, "My interaction with the air commanders was basically through John Yeosock and from my staff, G-3, chief of staff through Steve Arnold to the air. Now I did on one occasion go down and present, in essence, a new idea to John Corder. And I also talked about my goals as a corps commander with General Horner. But it wasn't a daily interaction. It was not a phone call interaction with them. It was through other commanders."

The command relations between the USAF and the US Army could have been better. With very little effort, the USAF could have integrated more effectively with the Army Corps. The JFACC should have found a way to work more directly with the corps commanders. The corps commanders were the men who would actually drive the land battle and make the critical tactical decisions. While there undisputedly needs to be a JFACC at the theater level with centralized control, communications between the commander of the

highest ground tactical unit and the operational air force commander need to be improved. The synergism between air power and land forces, either of which may be the dominating medium in battle, can only be optimized through close coordination and cooperation. In this regard, Operation Desert Storm serves as a poor example. The Coalition's overwhelming firepower, both in the air and on the ground, made synergism unnecessary to accomplish the military objectives with minimum casualties. However, when opposing military forces are more equal, and the enemy more of a match, this synergism becomes essential to having the most effective combat operations. The USAF and the US Army need to better align command structures and improve liaison interactions.

Alignment between command elements of the different services also needs to be addressed. One solution would be for each corps commander to be assigned a deputy JFACC flag officer, who works directly with and reports directly to the JFACC. The deputy JFACC could be placed on a status more equal to the corps commander. This would be similar to the successful air/ground relationships commanders enjoyed in past US conflicts. At the same time, a more robust Battlefield Coordination Element (BCE) should be fielded by the US Army. The commander of this element should work directly for the corps commander and have regular direct access to him. In addition, the deputy JFACC and the BCE commander should work closely together. If these changes were effected, it would go a long way towards establishing true and real time unity of effort.

In World War II and Korea, the largest tactical unit was the field army. At this level there was generally a close professional relationship and cooperation between the field army commander and the tactical air force or numbered air force commander. In Korea, Gen Walton Walker and Gen Matthew B. Ridgway, commanders of the Eighth Army, met almost daily with Gen Earle Partridge, who commanded the Fifth Air Force. In Italy during World War II, the Fifth US Army and the XIIth Air Support Command enjoyed collocated command posts. In France, Lt Gen George Patton, commander[18] of the Third US Army, worked very closely with Brig Gen Otto Weyland, commander of the XIXth Tactical Air Command. In the Southwest Pacific, Gen Douglas MacArthur teamed up very well with Gen George C. Kenney. MacArthur's forces were not unlike a modern day corps and in terms of capability, Kenney's forces were much like a modern day numbered air force. In each of these instances, there were strong working relations between the ground and air leaders. In each case the individual making the tactical decisions concerning the conduct of the land campaign enjoyed a direct interface with the airman making the tactical decisions concerning the conduct of the air campaign. Regardless of the specific nomenclature of the organization at the time, it is important that the senior officers of each component making the tactical decisions on the battlefield are working closely with one another.

Largely due to technology, US Army units have become more lethal in regards to firepower. As previously stated, although roughly equivalent in

size, the World War II field army is markedly inferior to the current day corps. But as individual US Army units have become more lethal in terms of firepower, so have individual Air Force units. A wing of fighters, equipped with precision-guided weapons can deliver several times the destructive effect on an enemy than a wing incapable of employing precision-guided weapons. While this was understood by the air power planners in Operation Desert Storm, it was not understood by the US Army commanders and planners at that time.

A flag officer deputy JFACC assigned directly to the corps would have two major advantages—rank and regular direct access to the JFACC. Neither was enjoyed by the senior AF officer (always a colonel) assigned to the corps during Operation Desert Storm. While Air Force operations might consist of a few hundred distinct combat elements, the Army is tasked with managing hundreds of thousands of elements. It is not unreasonable nor unexpected that the tactical commanders of the different service components should be effective at different command levels. Due to the nature of air power, General Horner, with a skillful staff, could direct tactical operations of several hundred aircraft as the component commander. However, the tactical commander in the US Army was not the component commander; it was the corps commander. In essence, there was not only a physical distance between the land and air tactical commanders, but also a chain of command incongruity.

Summary

It is very easy to avoid being critical of the Gulf War. It was a victory of epic proportions and operations went exceedingly well. There were relatively few casualties, many heroes, and for the Coalition, a happy ending. But a nation that wins a conflict is often set up to lose the next one. If it is satisfied with the status quo of its forces and doctrine, it is apt to fight future wars in a predictable manner. Conversely, losing and bystander nations often become innovative, rebuilding and rethinking warfare to ensure victory in the next conflict. Due to an abundance of resources, the US military was able to be effective with less than optimum integration. It would be foolhardy to depend on abundant resources to ensure victory in future conflicts. So while some of the issues brought forth in this study may appear to be "at the fringes" in regards to the Gulf War, given another enemy and another time, these "fringe issues" may be the decisive issues.

Notes

1. Army Field Manual (FM)100-5, *Operations,* 5 May 1986, 4.
2. Price Bingham, "Airpower in Desert Storm and the Need for Doctrinal Change," *Airpower Journal*, Winter 1991, 36.
3. Ibid., 34–35.
4. Lt Comdr Kevin Van Sloten, USN, interview with the author, 15 January 1994.

5. Bingham, 35.
6. Van Sloten interview.
7. Bingham, 39; and Fleet Marine Forces Manual 1-1, 29.
8. Ibid.
9. Dennis Drew, conversation with author, September 1993, School of Advanced Airpower Studies. Professor Drew is an author of air doctrine.
10. Hank Mauz, interview with author, 23 March 1994.
11. Smith, commander, USN, and McSwain, commander, USN, "Operation DESERT STORM," unpublished report. Smith was the Red Sea Fleet representative and McSwain was the Gulf Fleet representative to the JFACC Special Planning Cell.
12. Smith and McSwain.
13. Maj Pat Beekman, USMC, interview with author, 23 January 1994.
14. John Cushman, "Desert Storm's End Game," US Naval Institute *Proceedings,* vol. 119 (October 1993): 78.
15. John Yeosock, interview with author, 1 April 1994.
16. Army FM 100-5, 22.
17. Fred Franks, interview with author, 23 March 1994, 15.
18. Benjamin Franklin Cooling, *Case Studies in the Development of Close Air Support* (Washington, D.C.: Office of Air Force History, 1990), 238.

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